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February 14, 2002

Mr. Jeff Gore
United States Environmental Protection Agency
Region V (5HE)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Final Closure Report – All Source Areas
Source Area Remediation
Fisher-Calo Superfund Site
LaPorte County, Indiana

Dear Mr. Gore:

In accordance with the Source Area Remedial Action Work Plan for the Fisher-Calo Superfund Site dated November 17, 1997, and pursuant to Section XI of the Consent Decree for the United States of America versus Accurate Partitions Corp., *et al.* – Civil Action No. S91- 00646M, which was lodged on December 30, 1991, and entered by the United States District Court on February 27, 1992, this report is submitted as the Final Closure Report for all of the Source Areas related to the Fisher-Calo Superfund Site.

All five of the soil areas (Source Areas) have been successfully remediated according to the terms of the Source Area Remedial Action Work Plan (RAWP). USEPA has previously issued individual closure letters for each Source Area. This summary report incorporates the text from each of the approved individual Area Closure Reports, references data previously submitted to USEPA, and provides a final engineering certification that remedial activities, including final decommissioning, at all Source Areas have been successfully completed.

AREA A3

Area A3 Site Background

Area A3 (also referred to as the Canopy Area), located on the David Fisher property (National Packaging Plant #3) on Two Line Road North, was used for drum consolidation activities during the CERCLA Section 106 (106 Order) remediation work in 1990. Following completion of the drum consolidation activities, approximately 2 to 4 feet of underlying soil was excavated and disposed off-site. USEPA subsequently identified the presence of VOC- and B2EP-impacted soil beneath the Canopy Area. The Area A3 site layout is shown on Figure 1, Attachment A.

Area A3 Remedial Activities

The remedial system that was operated at Area A3 was installed as a pilot system to evaluate the effectiveness of the enhanced soil vapor extraction (ESVE) technology for treating volatile organic compound (VOC) and B2EP-impacted soils at the Site. ESVE, or bioventing as this technology is commonly called, is the removal and/or biological destruction of organic compounds

by induced airflow in the subsurface. The purpose of the treatability studies was to generate field and laboratory data to verify the feasibility and effectiveness of the biological treatment of B2EP in soil at the Site. The scope of work for the ESVE treatability study is presented in two documents: Enhanced Soil Vapor Extraction Treatability Study Work Plan by Conestoga-Rovers & Associates (CRA) dated March 25, 1995, and Enhanced Soil Vapor Extraction Treatability Study Work Plan Addendum by Groundwater Technology Inc. (GTI) dated November 14, 1995. Five VOCs and one SVOC were identified as Chemicals of Concern (COCs) at the A3 Source Area. The COCs and their respective Soil Action Levels (SALs) are summarized below:

Chemical of Concern	**Soil Action Levels (SALs) (mg/kg)**
VOCs	
trans-1,2-dichloroethene	15.2
1,1,1-trichloroethane	64.8
Trichloroethene	1.2
Methylene chloride	0.6
vinyl chloride	0.2
SVOCs	
bis(2-ethylhexyl)phthalate	6.1

The ESVE Treatability Study was conducted in a phased approach, and included four distinct phases as follows:

- **Phase I** (May 4, 1995, to June 16, 1995) - CRA characterization and microbial evaluation of source area soils, and CRA respirometry testing;
- **Phase II** (July 9, 1995, to November 25, 1995) - CRA initial soil column testing and CRA air extraction ESVE field pilot study;
- **Phase III** (November 23, 1995, to January 30, 1996) - Continuation of CRA initial soil column testing, GTI supplemental soil column testing and GTI air injection modified ESVE field pilot study. The CRA soil column testing was subsequently extended until May 1996;
- **Phase IV** (January 30, 1996, to August 11, 1998) - Continuation of air injection modified ESVE field pilot study.

The main field pilot test program was initiated on August 30, 1995, and continued through January 30, 1996. The first phase of the test was constructed and operated in accordance with

CRA's March 25, 1995, Work Plan and involved the installation of a soil vapor extraction well, an infiltration grid for nutrient and/or carbon source addition, installation of soil vapor probes for vacuum, oxygen, and carbon dioxide monitoring, and weekly monitoring events. Soil samples representative of pre-test conditions were collected from Area A3 in June 1994, and May 1995.

In November 1995, the pilot testing protocol was modified in order to generate additional field data to evaluate the air sparging methodology of oxygenating vadose zone soils. The enhancements to the pilot study Work Plan, as described in GTI's November 14, 1995, Work Plan Addendum, included the installation of two air injection wells, reconfiguration of the soil vapor extraction (SVE) blower to serve as the air injection blower, the installation of a subsurface oxygen, soil moisture, and subsurface temperature monitoring system, and weekly Site monitoring events.

The results of the field treatability study indicated the following:

1. Oxygen consumption and carbon dioxide production were observed in subsurface monitoring points, indicating that biological activity was taking place within the soil.

2. Reductions in SVOC concentrations were observed in the soil. Due to the relatively short time of the study, removal of SVOCs was observed in the less contaminated areas of the study area, but not in the more highly contaminated area. With sufficient time, it was anticipated, based on the pilot studies, that SVOC removal would be observed in all of the field study areas.

Based on the success of the treatability study, the Area A3 source area RA activities included continued operation of the existing ESVE pilot system (in air sparging mode). Soil samples were collected periodically during the operation of the A3 pilot system to determine the ongoing effectiveness of the SVE/ESVE system.

Area A3 Soil Sampling Events

Soil sampling events at Area A3 are summarized as follows:

- **Phase I** (August 1993) - Nine soil borings were completed in an approximate grid pattern (SB-40 through SB-48) beneath the Canopy Area, with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of B2EP and the five Site-specific VOCs;

- **Phase II** (June 1994) - Three additional soil borings were completed beneath the Canopy Area (SB-115, SB-117, and SB-118), with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of B2EP. In addition, four soil borings were completed adjacent to the Canopy Area (SB-113, SB-114, SB-116, and SB-119), with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of the five Site-specific VOCs (SB-116 samples were also analyzed for B2EP).

- **Phase III** (November 1994) - Two additional soil borings were completed adjacent to the Canopy Area, on the west side (SB-126 and SB-127), with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of B2EP;

- **Pre-treatability study sampling** (May 1995) - Two backhoe excavations were completed at locations A3-1 and A3-2 and two soil samples were collected within the excavations from the depth interval of 2 to 4 feet and 4 to 6 feet for treatability studies. These characterization samples were submitted for analysis of B2EP.

- **Phase VI** (December 1996) - Twelve additional soil borings were completed beneath the Canopy Area in previously sampled locations (SB-40, SB-41, SB-42, SB-43, SB-44, SB-45, SB-46, SB-47, SB-48, SB-118, SB-A3-1, and SB-A3-2), with soil samples collected from 2 to 4 feet, 4 to 6 feet, and, at SB-45, 16 to 18 feet for analysis of B2EP and the five Site-specific VOCs;

- **Phase VII** (May 1997) - Three additional soil borings were completed beneath the Canopy Area (SB-A3-1, SB-A3-2, and SB-46), with soil samples collected from 2 to 4 feet, for analysis of B2EP; and

- **Phase VIII** (March 1998) - Confirmation and reconfirmation samples were collected during the Phase VIII soil sampling event. Samples were collected from two soil borings completed beneath the Canopy Area (SB-A3-1 and SB-A3-2). At SB-A3-1, one confirmation and one reconfirmation soil sample was collected from 2 to 4 feet. At SB-A3-2, reconfirmation soil samples were collected from 2 to 4 feet and 4 to 6 feet. The confirmation and reconfirmation soil samples were analyzed for B2EP.

Analytical results for all phases of soil sampling are included in the Area A3 Closure Report, dated July 17, 1998. Sampling locations are shown on Figures 1 and 2, Attachment A. Based upon the results of the Phase VI soil sampling (December 1996), all of the VOC-impacted soils were successfully remediated to below the soil action levels for each of the Site-specific VOCs of concern. Based on the Phase VI, VII (May and June 1997), and VIII (March 1998) soil sampling, all of the B2EP-impacted soils were successfully remediated below the B2EP soil action level.

Based upon the data submitted in the June 25, 1998, Closure Report, the USEPA issued a letter dated August 4, 1998, indicating that the cleanup criteria for VOCs and SVOCs had been met. The USEPA closure letter for Area A3 has been included in Attachment B.

Area A3 Decommissioning

The air sparging system was shut down on August 11, 1998. Decommissioning activities were performed in December 2001, and January 2002. Decommissioning activities included the following:

- Removal of all above-grade piping and equipment from the site.

- Filling of the air sparging well with bentonite, and removal of the wellhead within 12 inches of the surface.

- Filling of all other below-grade piping and probes with sand, and removal of any piping material within 12 inches of the surface.

- Removal of the shed housing the remediation equipment.

- Removal of the security fence surrounding Area A3.
- Leveling of the berms surrounding the security fencing, and level grading of the entire area.
- Removal of the site canopy.

Photographs of the Area A3 decommissioning activities and of the site after the completion of all decommissioning activities are included in Attachment C.

SPACE LEASING AREA

Space Leasing Area Background

The Space Leasing Area was originally identified by USEPA as an area where buried containers potentially existed. As described in the RAWP, extensive buried container investigation activities were performed at the Space Leasing Area.

Geophysical surveys were conducted at the Space Leasing Area in order to evaluate the potential presence of buried metallic objects. The geophysical survey identified several magnetic anomalies, which were further evaluated as part of a subsequent test pit investigation.

A test pit investigation was performed in early 1994. The scope of the test pit investigation was expanded to include the full scale removal of buried containers, which were encountered in each area. A total of 2,859 containers containing waste and 3 gas cylinders were encountered. These containers were removed, over packed, and transferred to Building One and the former rifle range at Two Line Road North pending final disposal. A total of 1,443 empty containers were also encountered. These empty containers were rinsed, crushed, and disposed off Site. The work was conducted between January and April 1994. During the excavation, the Space Leasing Area was also found to contain primarily foundry sand with very little rubble and debris.

The site layout of the Space Leasing Area is shown in Figure 3, Attachment A.

Space Leasing Pre-Treatment Sampling

Following excavation activities at the Space Leasing Area, five sampling events were completed to characterize contaminant distribution at the site. The pre-treatment soil sampling events at the Space Leasing Area are summarized below (and are described in more detail in the Source Area RAWP):

- **Phase I** (August 1993) – No sampling at the Space Leasing Area was performed during this phase;
- **Phase II** (June 1994) - six soil borings (SB-91 through SB-96) were completed, with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 14 to 16 feet for analysis of the metals, and soil samples from SB-93 through SB-96 were collected from 2 to 4 feet, 8 to 10 feet, and 14 to 16 feet for analysis of VOCs, SVOCs, and PCBs (these analyses were used to develop an area-specific parameter list for future soil sampling activities);

- **Phase III** (November 1994) - 25 additional soil borings were completed in an approximate grid pattern (SB-143 through SB-167), with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 10 to 12 feet, for analysis of area-specific target parameter list compounds (with the exceptions that the lower zone soil samples from SB-146 and SB-147 were collected from 12 to 14 feet, and soil samples from SB-165 through SB-167 were only collected from 2 to 4 feet and 6 to 8 feet);

- **Phase IV** (March 1995) - three additional soil borings (SB-175 through SB-177) were completed to the south and east of the Phase III soil boring locations, with soil samples collected from three distinct depth zones (soil samples from SB-175 were collected from 2 to 4 feet, 8 to 10 feet, and 14 to 16 feet; soil samples from SB-176 were collected from 4 to 6 feet, 8 to 10 feet, and 12 to 14 feet; and soil samples from SB-177 were collected from 2 to 4 feet, 6 to 8 feet, and 8 to 10 feet) for analysis of the area-specific VOC target parameter list compounds;

- **Phase V** (July 1995) - three additional soil borings (SB-207 through SB-209) were completed to the south of the Phase IV soil boring locations, with soil samples collected from 2 to 4 feet, 6 to 8 feet, and 10 to 12 feet (with the exception of soil samples from SB-208 which were collected from 2 to 4 feet, 8 to 10 feet and 12 to 14 feet) for analysis of the area-specific VOC target parameter list compounds; and

- **Phase VII** (May 1997) - three additional soil borings (SB-SL-SB1 through SB-SL-SB3) were completed, with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 14 to 16 feet for analysis of the area-specific VOC target parameter list compounds, and total VOCs.

All sampling locations are shown in Figure 3, Attachment A. All analytical results are summarized in the Space Leasing Area Closure Plan, dated August 16, 1999. The activities and analytical results of the sampling phases described above are described in more detail in Sections 3.0 and 4.0 of the Source Area RAWP. Based on the soil data from Phases II, III, IV, V, and VII, the horizontal and vertical extent of VOC-impacted soil at the Space Leasing Area was adequately defined for the purpose of soil remediation. Eight VOCs were identified as Chemicals of Concern (COCs) at the Space Leasing Area. The eight COCs and their respective SALs are summarized below:

COCs	Soil Action Levels (SALs) (mg/kg)
trans-1,2-dichloroethene	15.2
1,1,1-trichloroethane	64.8
Trichloroethene	1.2
methylene chloride	0.6
vinyl chloride	0.2
2-butanone	20.0
cis-1,2-dichloroethene	8.7
2-hexanone	3.4

Space Leasing Treatment Activities

The SVE system installed at the Space Leasing Area was designed to remove VOCs by induced airflow in the subsurface. The system, which operated from May to December 1998, consisted of 2 blowers operating in parallel. One blower was connected to a header system that included five wells, while the second blower was connected to the remaining five wells. Each blower extracted approximately 730 cfm for a total air flow rate of 1460 cfm. Periodic visits were made to the Space Leasing Area throughout its operation. Analytical air effluent samples were collected from the system blower monthly and submitted to an analytical laboratory. Air effluent FID/PID readings were also collected periodically. These FID/PID readings and air analytical sampling results are summarized in the Space Leasing Closure Report, dated August 16, 1999.

Space Leasing Confirmation and Reconfirmation Soil Sampling

In November 1998, a total of 21 soil sampling locations at the Space Leasing Area were investigated and analyzed for VOCs. All 21 locations contained either non-detectable concentrations of COCs or concentrations below the SALs. The SVE system at the Space Leasing Area was subsequently turned off on December 1, 1998. The last air effluent sample collected from the Space Leasing system prior to shutdown was collected on October 22, 1998.

Based upon subsequent discussions with USEPA, it was agreed that all of shallow soil sampling locations would be resampled to confirm the November 1998 results before closure would be granted. Eleven of the previously sampled shallow (2-4 ft BGS) soil sampling locations (SB-93, SB-94, SB-96, SB-148, SB-150, SB-151, SB-153, SB-155, SB-156, SB-160, and SB-175) were resampled on May 24, 1999, to confirm the November 1998 closure sampling data. All sampling locations are shown in Figure 3, Attachment A. All analytical results are summarized in the Space Leasing Area Closure Plan, dated August 16, 1999.

The reconfirmation results, which found no VOCs present above the SALs, were consistent with the November 1998 closure sampling results. Accordingly, the Space Leasing Area was successfully remediated under the terms of the Consent Decree and the RAWP.

Based upon the data submitted in the August 16, 1999, Closure Report, the USEPA issued a letter dated September 7, 1999, indicating that the cleanup criteria for VOCs had been met. The USEPA closure letter for the Space Leasing Area has been included in Attachment B.

Space Leasing Area Decommissioning

The Space Leasing treatment system was shut down on December 1, 1998. Decommissioning activities were performed in December 2001. Decommissioning activities included the following:

- Removal of all above-grade piping and equipment from the site
- Filling of all below-grade SVE and probe piping with sand, and removal of any piping material within 12 inches of the surface
- Removal of the equipment building housing the remediation equipment

The security fencing around the Space Leasing Area remains in place, as per an agreement with the current property owner. Photographs of the Space Leasing Area decommissioning activities and of the site after the completion of all decommissioning activities are included in Attachment C.

AREA A1

Area A1 Background

Area A1, located on the David Fisher property (National Packaging Plant #3) on Two Line Road North, was initially identified by USEPA as having VOC and bis(2-ethylhexyl)phthalate (B2EP) -impacted soil. Area A1 consisted of a main soil stockpile overlying an impermeable bottom liner. The approximate height of the soil stockpile was 15 to 20 feet. Uncontaminated bermed soils surrounded the main soil stockpile. The layout of Area A1 is shown in Figure 4, Attachment A.

Historical soil sampling events at this area are summarized as follows and are described in more detail in the Source Area RAWP (not all phases of investigation included sampling at Area A1):

- **Phase I** (August 1993) - six soil borings were completed through the main soil stockpile (SB-49 through SB-52, SB-80, and SB-81), with samples collected continuously for B2EP analysis, and samples collected from three distinct depth zones for analysis of the five Site-specific VOCs; 15 soil borings were completed through the surrounding bermed soil (SB-65 through SB-79), with samples collected from 2 to 4 feet and 4 to 6 feet/or 6 to 8 feet (depending on the depth of the berm) for analysis of B2EP and the five Site-specific VOCs; four angled soil borings were completed beneath the liner between the main soil

stockpile and the bermed soil (SB-61 through SB-64), with samples collected from three distinct depth zones for analysis of B2EP and the five Site-specific VOCs;

- **Phase II** (June 1994)- three additional soil borings were completed through the main soil stockpile (SB-101 through SB-103), with samples collected continuously for B2EP analysis, and samples collected from three distinct depth zones for analysis of the five Site-specific VOCs;

- **Phase VI** (December 1996) - five additional soil borings were completed at previously sampled locations (SB-50, SB-51, SB-80, SB-81, and SB-101), with samples collected at 2 to 4 feet, 6 to 8 feet, and 14 to 16 feet below the liner, analyzed for B2EP and the five Site-specific VOCs; and

- **Phase VII** (May 1997) - one additional soil boring (SB-A1-SB1) was completed through the main soil stockpile, above the liner, with samples collected continuously and analyzed for B2EP, the five Site-specific VOCs, and total VOCs.

The activities and analytical results of the sampling phases presented above are described in more detail in Section 4.0 of the Source Area RAWP. Based on the soil data from Phases I, II, VI, and VII, the horizontal and vertical extent of VOC- and B2EP-impacted soil (both above and below the liner) at Area A1 were adequately defined for the purpose of soil remediation. Five VOCs and one SVOC were identified as Chemicals of Concern (COCs) at the A1 Source Area. The COCs and their respective Soil Action Levels (SALs) are summarized below:

Chemical of Concern	**Soil Action Levels (SALs) (mg/kg)**
VOCs	
trans-1,2-dichloroethene	15.2
1,1,1-trichloroethane	64.8
Trichloroethene	1.2
Methylene chloride	0.6
vinyl chloride	0.2
SVOCs	
bis(2-ethylhexyl)phthalate	6.1

Area A1 Treatment Activities

As discussed in Section 9.0 of the RAWP, the technology selected for remediating soils impacted by VOCs and B2EP at Source Area A1 involved a combination of SVE and ESVE systems. Prior to system installation, the nearby stockpiled soil boring cuttings generated through previous investigations and well installations at the Site were spread evenly over the Area A1 soil pile. In this manner, the soil boring cuttings were treated concurrently with the Area A1 soils. Clearing and grubbing of all vegetation that may have impeded either the construction or operation of the SVE system was also performed prior to system installation. A 10-foot chain-link fence was constructed around the entire Site to address both safety and security concerns.

The SVE/ESVE system installed at the A1 Source Area was designed to remove VOCs and B2EP by induced airflow in the subsurface. The induced airflow not only volatilized VOCs present in the soil, but also provided native microorganisms with the oxygen necessary to biodegrade less volatile compounds present, such as B2EP. The system, which operated from May 1998 to August 1999, consisted of a blower connected to a header system that included six wells. Initially, the blower extracted air at approximately 480 cfm from the subsurface. Because of the collection of water (due to precipitation) above the liner underlying Area A1, the SVE system was reconfigured to operate in injection mode on January 20, 1999. Air injection allowed for the treatment of soils directly above the liner that were otherwise saturated with rainwater. In this configuration, the blower operated at approximately 830 cfm, with SVE wells W1 through W5 all operational. Only SVE well W6 (located beneath the liner) was shut down, because the soils immediately surrounding this well had already been found to be successfully remediated.

Periodic visits were made to the A1 Source Area throughout its operation. While the system was operating in extraction mode, analytical air effluent samples were collected from the system blower and submitted for VOC analysis. Air effluent FID/PID readings were also collected during these site visits. These FID/PID readings and the air analytical sampling results are summarized in the Area A1 Closure Report, dated November 11, 1999. When the system began operating in injection mode, air effluent FID/PID readings or air samples were no longer collected during visits to the site. The last air effluent sample collected from Area A1 system prior to reconfiguration was collected on October 22, 1998. In accordance with the confirmation sampling protocol, the Area A1 SVE system was shut down in August 1999 to provide a 30-day shutdown period prior to the soil confirmation sampling event held in September 1999.

Area A1 Confirmation and Reconfirmation Soil Sampling

In November 1998, a total of 25 soil sampling locations at Area A1 were investigated. Seventeen of these locations were sampled and analyzed for VOCs, and 11 of these locations were sampled for B2EP. All sampling locations are shown in Figures 4 and 5, Attachment A. All analytical results are summarized in the November 11, 1999, Area A1 Closure Report.

Of the 17 locations sampled for VOCs, all but one exhibited either non-detectable concentrations or concentrations of COCs below the SALs. Of the 11 locations sampled for B2EP, all but 3 exhibited either non-detectable concentrations of B2EP or concentrations below the SALs. Accordingly, these sampling locations were eliminated from future sampling rounds.

On February 23, 1999, the four remaining soil sampling locations at Area A1 were resampled. However, none of these locations were found to be completely remediated during this sampling event; accordingly, these sampling locations remained in the confirmation sampling program, and the treatment system continued to operate.

On May 24, 1999, the four remaining soil sampling locations at Area A1 were resampled. One VOC sampling location (SB-103, at 10-12 ft BGS) and two B2EP sampling locations (SB-49 at 16-18 ft BGS; and SB-102 at 8-10 ft BGS) were found to remain above the SALs.

In accordance with the reconfirmation sampling protocol implemented by USEPA and the Site Group on May 5. 1999, one additional VOC shallow soil sampling location (SB-101, 2-4 ft BGS) was also resampled on May 24, 1999, to confirm the November 1998 closure sampling data. The reconfirmation results, which found no VOCs present above the detection limits, were consistent with the November 1998 closure sampling results.

The final round of confirmation sampling took place on September 28 and 29, 1999. As part of this sampling event, the one remaining VOC sampling location at Area A1 (SB-103, at 10-12 ft BGS), and two B2EP sampling locations (SB-49 at 16-18 ft BGS; and SB-102 at 8-10 ft BGS) were sampled. All three locations exhibited either non-detectable concentrations of COCs or concentrations below the SALs.

The September 1999 confirmation results found no VOCs or B2EP present above the SALs. Accordingly, Source Area A1 was successfully remediated under the terms of the Consent Decree and the RAWP.

Based upon the data submitted in the November 11, 1999, Closure Report, the USEPA issued a letter dated December 7, 1999, indicating that the cleanup criteria for VOCs and SVOCs had been met. The USEPA closure letter for Area A1 has been included in Attachment B.

Area A1 Decommissioning

The Area A1 treatment system was shut down on August 25, 1999. Decommissioning activities were performed in December 2001 and January 2002. Decommissioning activities included the following:

- Removal of the security fencing
- Removal of all piping and equipment from the site
- Removal of the building housing the remediation equipment
- Replacement of all soils into the excavation adjacent to the A1 soil pile
- Removal of all concrete slabs and power poles
- Level grading of the entire site

Photographs of the Area A1 decommissioning activities and of the site after the completion of all decommissioning activities are included in Attachment C.

AREA C2

C2 Area Background

Area C2, immediately north of the main Alexander Chemical building on One Line Road South, was initially identified by USEPA as having VOC- and B2EP-impacted soil. The original site layout is shown in Figure 6, Attachment A.

Historical soil sampling events at this area are summarized as follows and are described in more detail in the Source Area RAWP (not all phases of investigation included sampling at Area C2):

- **Phase I** (August 1993) - 15 soil borings were completed in an approximate grid pattern (SB-1 through SB-15), with soil samples collected from 0 to 2 feet, 8 to 10 feet, and 16 to 18 feet for analysis of B2EP, soil samples were collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet (except SB-5 because of poor recovery) for analysis of the five Site-specific VOCs;

- **Phase II** (June 1994) - nine additional soil borings were completed east of the Phase I grid pattern within the former tank farm (SB-104 through SB-112), with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of the five Site-specific VOCs;

- **Phase III** (November 1994) - 13 soil gas probe locations were completed (SG-1 through SG-13), with soil samples collected from the 4 to 6-foot interval for analysis of the five Site-specific VOCs using a portable gas chromatograph, and based on the soil gas probe results, seven additional soil borings were completed to the north and east of the former tank farm (SB-168 through SB-174), with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of the five Site-specific VOCs; and

- **Phase VII** (May 1997) - one additional soil boring was completed (SB-C2-SB1), with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of the five Site-specific VOCs and total VOCs.

The activities and analytical results of the sampling phases outlined above are described in more detail in Section 4.0 of the Source Area RAWP. Based on the soil data from Phase I, B2EP was found to exist only at soil concentrations already below the B2EP SAL (6.1 mg/kg); therefore, no further remediation of B2EP was required at Area C2. Based on the soil data from Phases I, II, III, and VII, the horizontal and vertical extent of VOC-impacted soil at Area C2 were adequately defined for the purpose of soil remediation. Five VOCs were identified as Chemicals of Concern (COCs) at Area C2. The five COCs and their respective SALs are summarized below:

Chemical of Concern	Soil Action Levels (SALs) (mg/kg)
VOCs	
trans-1,2-dichloroethene	15.2
1,1,1-trichloroethane	64.8
Trichloroethene	1.2
methylene chloride	0.6
vinyl chloride	0.2

Area C2 Treatment Activities

As discussed in Section 9.0 of the RAWP, the technology selected for remediating soils impacted by VOCs at Source Area C2 was an SVE system, designed to remove VOCs by induced airflow in the subsurface. Prior to system installation, a 4-foot chain-link fence was constructed around the above-grade system equipment at Area C2 to address both safety and security concerns within the Alexander Chemical property (already protected with a 10-foot site security fencing system).

The system, which operated from May 1998 to August 1999, consisted of a blower connected to a header system that included five wells. The blower extracted air at a flow rate of approximately 780 cfm. Because of the VOC concentrations in the soil at Area C2, the effluent of the SVE system initially exhibited VOC concentrations high enough to require air treatment. As a result, the system effluent was routed through a below-grade conduit to the KIDP Area, where a thermal oxidizer was constructed to treat the effluents of both the C2 and KIDP systems. Air sampling of the Area C2 blower effluent on May 14, 1998, demonstrated that the VOC concentrations had dropped below the level requiring air treatment. On May 18, 1998, the effluent from the Area C2 system was rerouted to discharge directly to the atmosphere.

Periodic visits were made to Area C2 throughout its operation. Analytical air effluent samples were collected from the system blower monthly and submitted to an analytical laboratory. Air effluent FID/PID readings were also collected periodically. These FID/PID readings and the air analytical sampling results are summarized in the November 11, 1999, Closure Report for Area C2. SVE wells W3 and W4 (the closest SVE wells to the soils that remained above the SAL) were the only two wells operating during the latter stages of treatment. The system was shut down in late August 1999 to allow a 30-day shut down period prior to the September 1999 soil confirmation sampling event. The last air effluent sample collected from the C2 system prior to shutdown was collected on October 22, 1998.

Area C2 Confirmation and Reconfirmation Soil Sampling

Between November 3 and November 10, 1998, a total of 29 soil sampling locations were sampled and analyzed for VOCs at Area C2. All sampling locations are shown in Figure 6, Attachment A. All analytical results are summarized in the November 11, 1999, Area C2 Closure Report. Of the 29 sampled locations, 28 exhibited either non-detectable concentrations of COCs or concentrations that were below the SALs for all COCs originally present. Accordingly, these sampling locations were eliminated from future sampling rounds. The one remaining soil location (SB-112, at 2-4 ft BGS) exhibited trichloroethene (TCE) at a concentration above the SAL.

On February 23, 1999, the one remaining soil sampling location at Area C2 was resampled. However, this location was found to remain above the SAL; accordingly, this sampling location remained in the confirmation sampling program.

On May 25, 1999, the one remaining soil sampling location was again resampled for VOCs. In accordance with the reconfirmation sampling protocol implemented by USEPA and the Site Group on May 5, 1999, seven additional shallow (2-4 ft BGS) VOC soil sampling locations (SB-104, SB-105, SB-107, SB-108, SB-109, SB-110, and SB-111) were also resampled on May 25, 1999. Four of the sampling locations (SB-104, SB-105, SB-108, and SB-112, all at 2-4 ft BGS) were found to exhibit TCE concentrations above the SAL; accordingly, these four sampling locations remained in the confirmation sampling program.

The final round of confirmation sampling took place on September 28 and 29, 1999. As part of this sampling event, the four remaining VOC sampling locations at Area C2 (SB-104, SB-105, SB-108, and SB-112, all at 2-4 ft BGS) were resampled. All four locations exhibited either non-detectable concentrations of COCs or concentrations below the SALs.

The September 1999 confirmation results found no VOCs present above the SALs. Accordingly, Area C2 has been successfully remediated under the terms of the Consent Decree and the RAWP.

Based upon the data submitted in the November 11, 1999, Area C2 Closure Report, the USEPA issued a letter dated December 7, 1999, indicating that the cleanup criteria for VOCs had been met. The USEPA closure letter for Area C2 has been included in Attachment B.

Area C2 Decommissioning

The Area C2 treatment system was shut down on August 25, 1999. Decommissioning activities were performed in January 2000. Decommissioning activities included the following:

- Removal of all above-grade piping and equipment from the site
- Removal of the building housing the remediation equipment
- Filling of all below-grade SVE and probe piping with sand, and removal of all piping materials within 12 inches of the surface grade

After the decommissioning activities noted above were completed, Alexander Chemical expanded their plant operations by building a factory extension that largely covered the area originally remediated. A photograph of Area C2, showing the expanded Alexander Chemical facility, is included in Attachment C.

KIDP AREA

KIDP Area Background

The KIDP Area on One Line Road South was initially identified by USEPA as an area where buried containers potentially existed. Geophysical surveys were conducted at the KIDP Area in order to evaluate the potential presence of buried metallic objects. The geophysical survey identified several magnetic anomalies, which were further evaluated as part of a subsequent test pit investigation.

A test pit investigation was performed in late 1993. The scope of the test pit investigation was expanded to include the full-scale removal of buried containers, which were encountered in the KIDP area. A total of 596 containers containing waste and 106 gas cylinders were encountered. These containers were removed, over packed, and transferred to Building One and the former rifle range at Two Line Road North pending final disposal. A total of 261 empty containers were also encountered. These empty containers were rinsed, crushed, and disposed off Site. The work was conducted in 1994.

The buried container investigation and removal activities performed at the KIDP Area are discussed in more detail in the Source Area RAWP. Following the buried container removal activities, residual soils were replaced into the open excavation. These soils were identified by USEPA as being impacted by both VOCs and SVOCs. The site layout is shown in Figure 7, Attachment A.

Historical soil sampling events at this area are summarized as follows and are described in more detail in the Source Area RAWP (not all phases of investigation included sampling at the KIDP Area):

- **Phase II** (June 1994) - four soil borings (SB-97 through SB-100) were completed, with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for TAL metals analysis, soil samples from SB-99 and SB-100 were collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analyses of TCL SVOCs, TCL VOCs, and PCBs (these analyses were used to develop an area-specific parameter list for future soil sampling activities);

- **Phase III** (November 1994) - 15 additional soil borings were completed in an approximate grid pattern (SB-128 through SB-142), with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of the area-specific target parameter list compounds;

- **Phase IV** (March 1995) - four additional soil borings (SB-171 through SB-174) were completed, with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of the area-specific VOC target parameter list compounds, and soil samples from

SB-171 were collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of the area-specific SVOC target parameter list compounds; and

- **Phase VII** (May 1997) - five additional soil borings (SB-K-SB1 through SB-K-SB5) were completed, with soil samples collected from 2 to 4 feet, 8 to 10 feet, and 16 to 18 feet for analysis of the area-specific VOC target parameter list compounds, the area-specific SVOC target parameter list compounds, and total VOCs.

The activities and analytical results of the sampling phases presented above are described in more detail in Section 4.0 of the Source Area RAWP. Based on the soil data from Phases II, III, IV, and VII, the horizontal and vertical extent of VOC- and B2EP-impacted soil at the KIDP Area A1 were adequately defined for the purpose of soil remediation. Twelve VOCs and four SVOCs were identified as COCs at the KIDP Source Area. The COCs and their respective SALs are summarized below:

Chemical of Concern	**Soil Action Levels (SALs) (mg/kg)**
VOCs	
trans-1,2-Dichloroethene	15.2
1,1,1-Trichloroethane	64.8
Trichloroethene	1.2
Methylene chloride	0.6
Vinyl chloride	0.2
Acetone	19.0
2-Butanone	20.0
Choroform	7.8
cis-1,2-Dichloroethene	8.7
4-Methyl–2-pentanone	27.0
Tetrachloroethene	4.6
Toluene	760.0
SVOCs	
Isophorone	410
2-Methylnaphthalene	190
Naphthalene	190
bis(2-Ethylhexyl)phthalate	6.1

KIDP Area Treatment Activities

As discussed in Section 9.0 of the RAWP, the technology selected for remediating soils impacted by VOCs and SVOCs at the KIDP Area involved a combination of SVE and ESVE systems. Prior to system installation, clearing and grubbing of all vegetation that may have impeded either the construction or operation of the SVE system was performed. A 10-foot chain-link fence was constructed around the entire Site to address both safety and security concerns.

The SVE/ESVE system installed at the KIDP Source Area was designed to remove VOCs and SVOCs by induced airflow in the subsurface. The induced airflow not only volatilized VOCs present in the soil, but also provided native microorganisms with the oxygen necessary to biodegrade the less volatile SVOCs present. The system, which has operated from May 1998 to November 2001, consisted of a blower connected to a header system that included a total of six wells (the final SVE well, W6, was added to the system in September 1999 to provide wider vacuum coverage). The blower extracted air at approximately 810 cfm from the subsurface. The effluent of the KIDP SVE system was initially routed to a thermal oxidizer for treatment. Air sampling performed in July 1998 demonstrated that the KIDP system effluent concentrations were below the level requiring air treatment. The KIDP system effluent was therefore rerouted at that time to discharge directly to atmosphere.

Periodic visits were made to the KIDP Source Area throughout its operation. While the system was operating in extraction mode and VOCs had not yet been successfully remediated, analytical air effluent samples were collected from the system blower and submitted for VOC analysis. Air effluent FID/PID readings were also collected during these site visits. These FID/PID readings and the air analytical sampling results are summarized in the KIDP Area Closure Report, dated December 4, 2001.

KIDP Area Confirmation and Reconfirmation Soil Sampling

On May 25 through 27, 1999, the first annual confirmation soil sampling for the KIDP Area was performed. During this sampling event, 23 soil sampling locations were sampled and analyzed (15 for SVOCs and VOCs, 2 for only SVOCs, and 6 for only VOCs). All sampling locations are shown in Figures 7 and 8, Attachment A. All analytical data are summarized in the December 4, 2001, KIDP Area Closure Report. The analytical data from this event indicated that 10 of the 21 VOC locations achieved the SALs. Of these 10 locations, 6 required reconfirmation as the KIDP system was not shut down 30 days prior to the confirmation sampling event. The analytical data from this event indicated that 5 of 17 SVOC sampling locations achieved the SALs. Of these 5 locations, one required reconfirmation, because B2EP soil concentrations were found to have dropped by more than 80 percent at this location.

On May 10, 2000, the second annual confirmation soil sampling event for the KIDP Area was performed. During this sampling event, 19 soil sampling locations were sampled and analyzed (11 for SVOCs and VOCs, 2 for only SVOCs, and 6 for only VOCs). The analytical data from this sampling event indicated that all 17 of the VOC locations achieved the SALs. Because the KIDP SVE system was shut down for 30 days prior to confirmation sampling, none of these VOC results required reconfirmation. Accordingly, the cleanup criteria for VOCs at the KIDP Area were met,

and no further VOC sampling was performed at the KIDP Area. Of the 13 SVOC sampling locations at the KIDP Area, 9 achieved the SALs. Of these 9 locations, 4 required reconfirmation, because B2EP soil concentrations were found to have dropped by more than 80 percent since the prior sampling event at these locations.

On May 8, 2001, the third annual confirmation soil sampling event for the KIDP Area was performed. During this sampling event, 8 soil sampling locations were sampled and analyzed (all for SVOCs). Four of these locations were reconfirmation locations, and four locations were found to have B2EP concentrations above the SAL during the prior sampling event. The analytical data from this sampling event indicated that all but 2 of the SVOC locations achieved the SALs. The remaining two locations only exceeded the B2EP SAL; all other SVOCs were successfully remediated at these two locations.

On November 20, 2001, the final round of confirmation sampling took place. During this sampling event, the final 2 soil sampling locations (K-SB2, 2-4'; K-SB5, 8-10') were sampled and analyzed for SVOCs.

The November 2001 confirmation sampling results found no SVOCs present above the SALs in any of the investigative samples or duplicates. Accordingly, the KIDP Source Area has been successfully remediated under the terms of the Consent Decree and the RAWP.

Based upon the data submitted in the December 4, 2001, KIDP Area Closure Report, the USEPA issued a letter dated January 8, 2002, indicating that the cleanup criteria for VOCs and SVOCs had been met. The USEPA closure letter for the KIDP Area has been included in Attachment B.

KIDP Area Decommissioning

The KIDP Area treatment system was shut down on November 20, 2001. Decommissioning activities were performed in January 2002. Decommissioning activities included the following:

- Removal of all above-grade piping and equipment from the site.
- Removal of the building housing the remediation equipment.
- Removal of the thermal oxidizer.
- Filling of all below-grade SVE and probe piping with sand, and removal of all piping materials within 12 inches of the surface grade.
- Removal of the security fencing surrounding the KIDP Area.

Photographs of the KIDP Area decommissioning activities and of the site after the completion of all decommissioning activities are included in Attachment C.

SUMMARY

In accordance with the Record of Decision and the requirements of the RAWP, the closure criteria for each of the five Fisher-Calo Source Areas have been achieved. The respective remediation systems at each of these areas have successfully remediated all the VOC-and SVOC-impacted soils to below soil-action levels for each site-specific compound of concern. Accordingly, the Site Group is pleased to present this Final Source Area Closure Report as an application for closure of all five soil Source Areas at the Fisher-Calo Superfund Site.

CERTIFICATION

I attest that site investigations and remedial activities that are the subject of this report were performed under my direction, and this document and all attachments were prepared under my direction or reviewed by me, and to the best of my knowledge and belief, the work described in the plan and report has been completed in accordance with generally accepted engineering practices, and the information presented is accurate and complete. I further attest that the Consent Decree requirements for VOC and SVOC soil remediation at each of the five source areas have been met.

Engineer Name: Richard M. Frendt

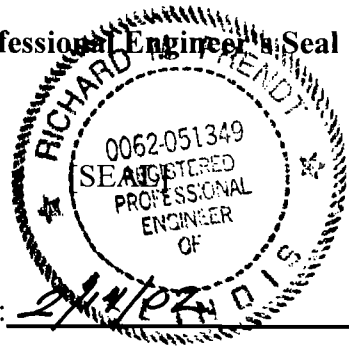
Company: Parsons Engineering Science, Inc.

Phone Number: 630-371-1812

Registration Number: IL 0062-051349

License Expiration Date: 11/30/03

Professional Engineer's Seal



Signature: _____ **Date:** 2/14/02

Should you have any questions regarding this report, please feel free to call Mr. Rick Frendt at (630) 371-1812.

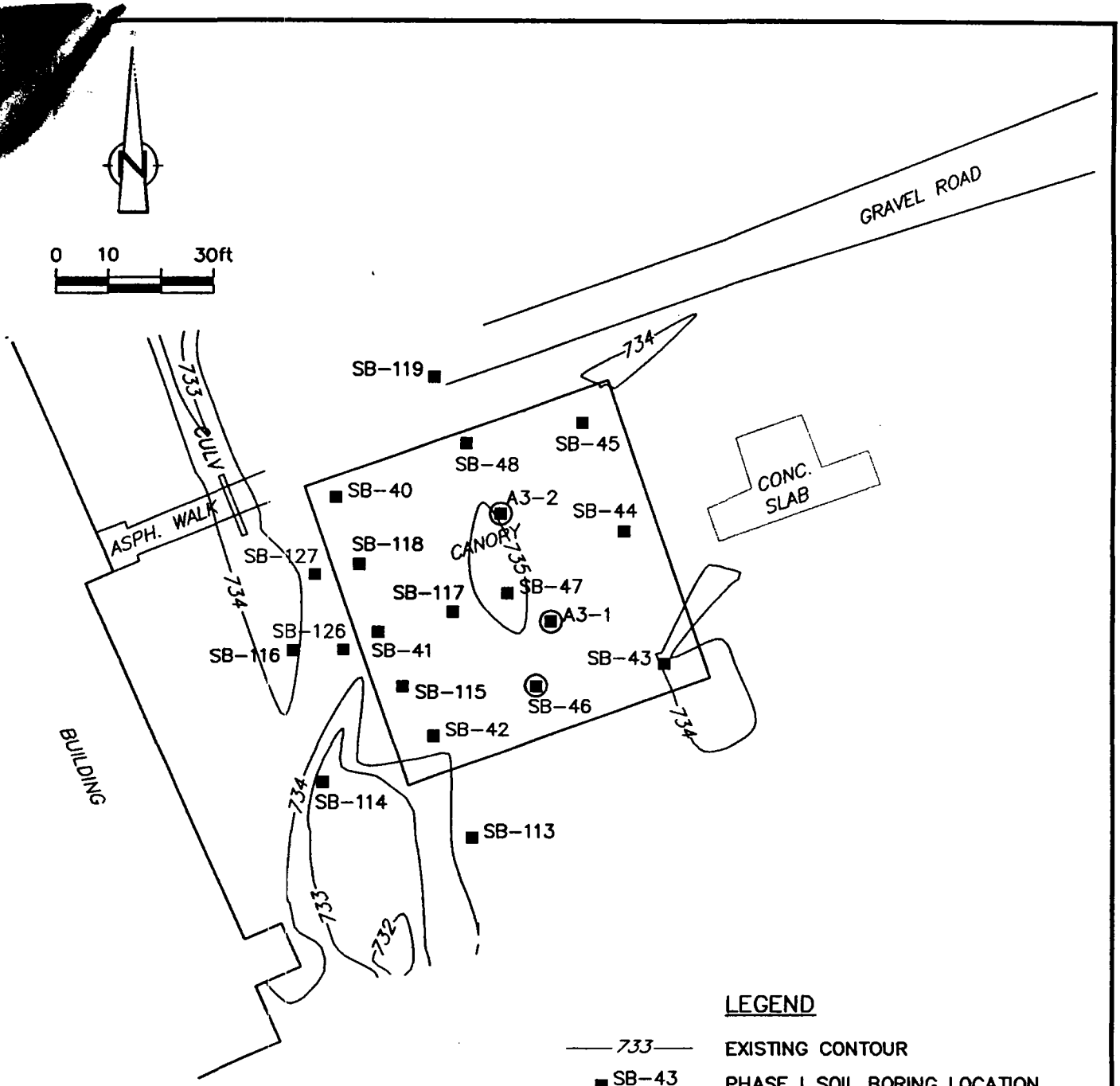
Sincerely,
PARSONS CORPORATION

Richard M. Frendt, P.E.
Project Manager

RMF:rf
Attachments
c: Resa Ramsey/IDEM
Site Group Technical Committee
David Heidlauf/Montgomery Watson Harza
Dick Paulen/Barnes & Thornburg
File: 731517

ATTACHMENT A

FIGURES



LEGEND

733	EXISTING CONTOUR
SB-43	PHASE I SOIL BORING LOCATION (AUGUST 1993)
SB-119	PHASE II SOIL BORING LOCATION (JUNE 1994)
SB-126	PHASE III SOIL BORING LOCATION (NOVEMBER 1994)
A3-1	PRE-TREATABILITY STUDY SAMPLING LOCATION (MAY 1995)
A3-2	PHASE VII SOIL BORING LOCATION (MAY 1995)

SOURCE: FRANCIS ASSOCIATES CONSULTING ENGINEERS LAND SURVEYORS PARIS, ILLINOIS, NOVEMBER 1993.

Figure 1

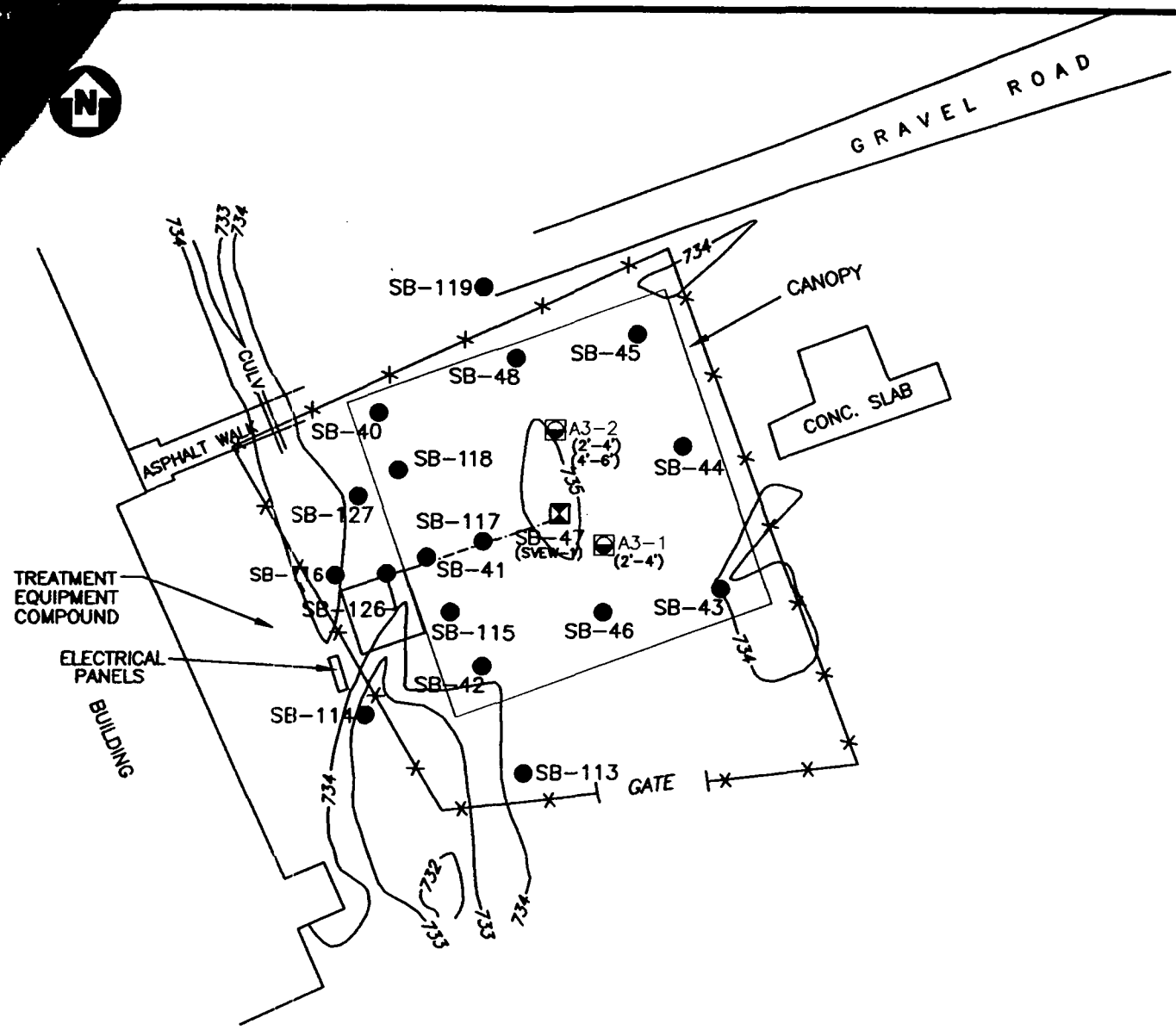
SOIL BORING LOCATIONS – AREA A3

Fisher-Calo Site

CRA / PARSONS ENGINEERING SCIENCE

4-4-R1 11-11-97 / NP

224 4/4



LEGEND

- SECURITY FENCE
- 735 EXISTING CONTOUR
- SB-118 HISTORIC SOIL BORING LOCATION
- SOIL VAPOR EXTRACTION/ AIR SPARGING WELL
- PHASE VIII CONFIRMATION SOIL BORING LOCATION
- (2'-4') CONFIRMATION SOIL SAMPLE DEPTH

30' 0' 30'

Approximate Scale in Feet

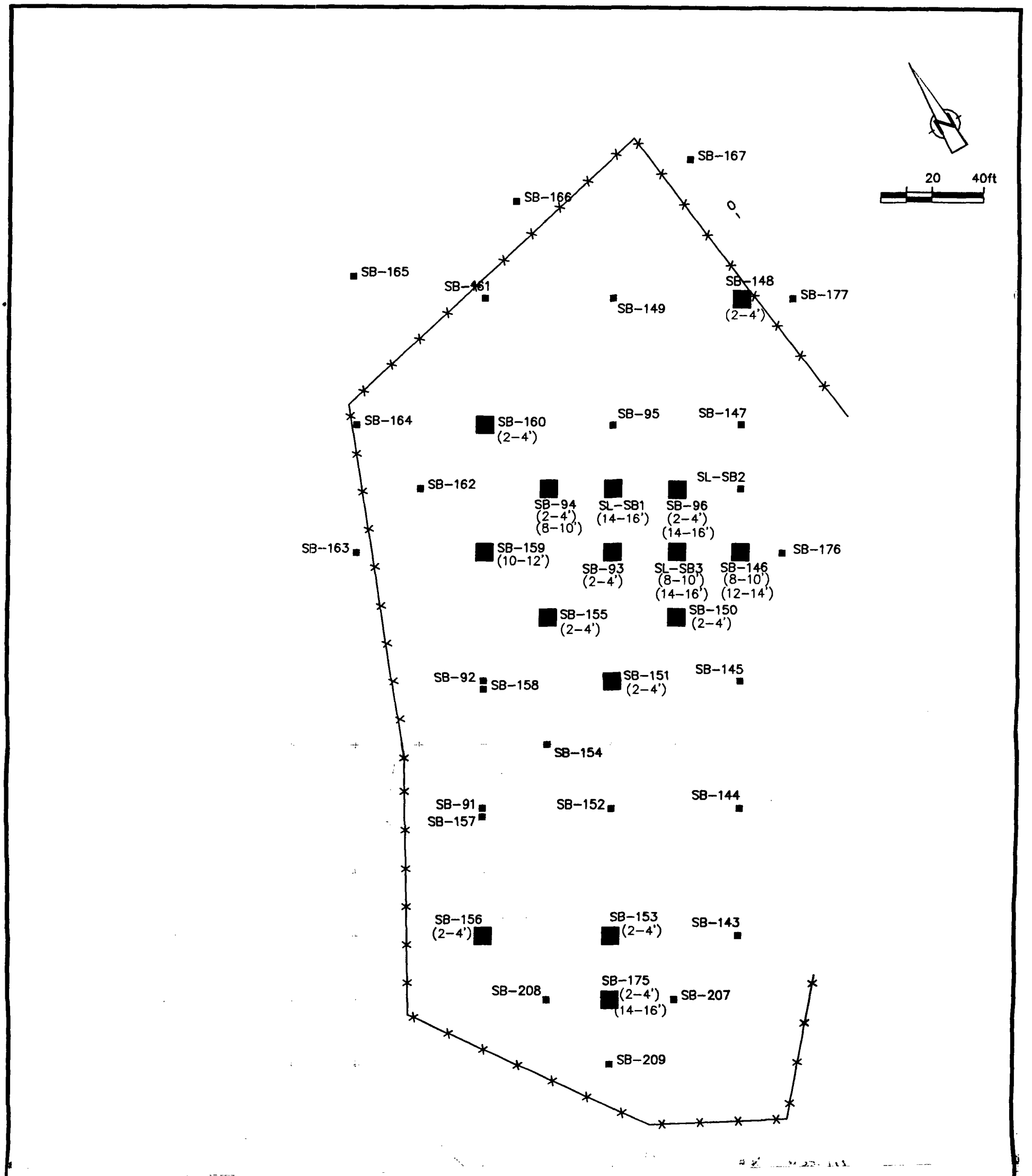
FIGURE 2

FISHER-CALO SITE

MARCH 1998
CONFIRMATION SOIL BORING LOCATIONS
AREA A3

PARSONS ENGINEERING SCIENCE, INC.
DESIGN • RESEARCH • PLANNING
1700 JORIE BOULEVARD • SUITE 220 • OAK BROOK, IL 60521 • 630/990-7200
OFFICES IN PRINCIPAL CITIES

DATE: 6/23/98 (NP)
R:\DRAWINGS\FISHCALO\BASEAP\G06-R3.DWG

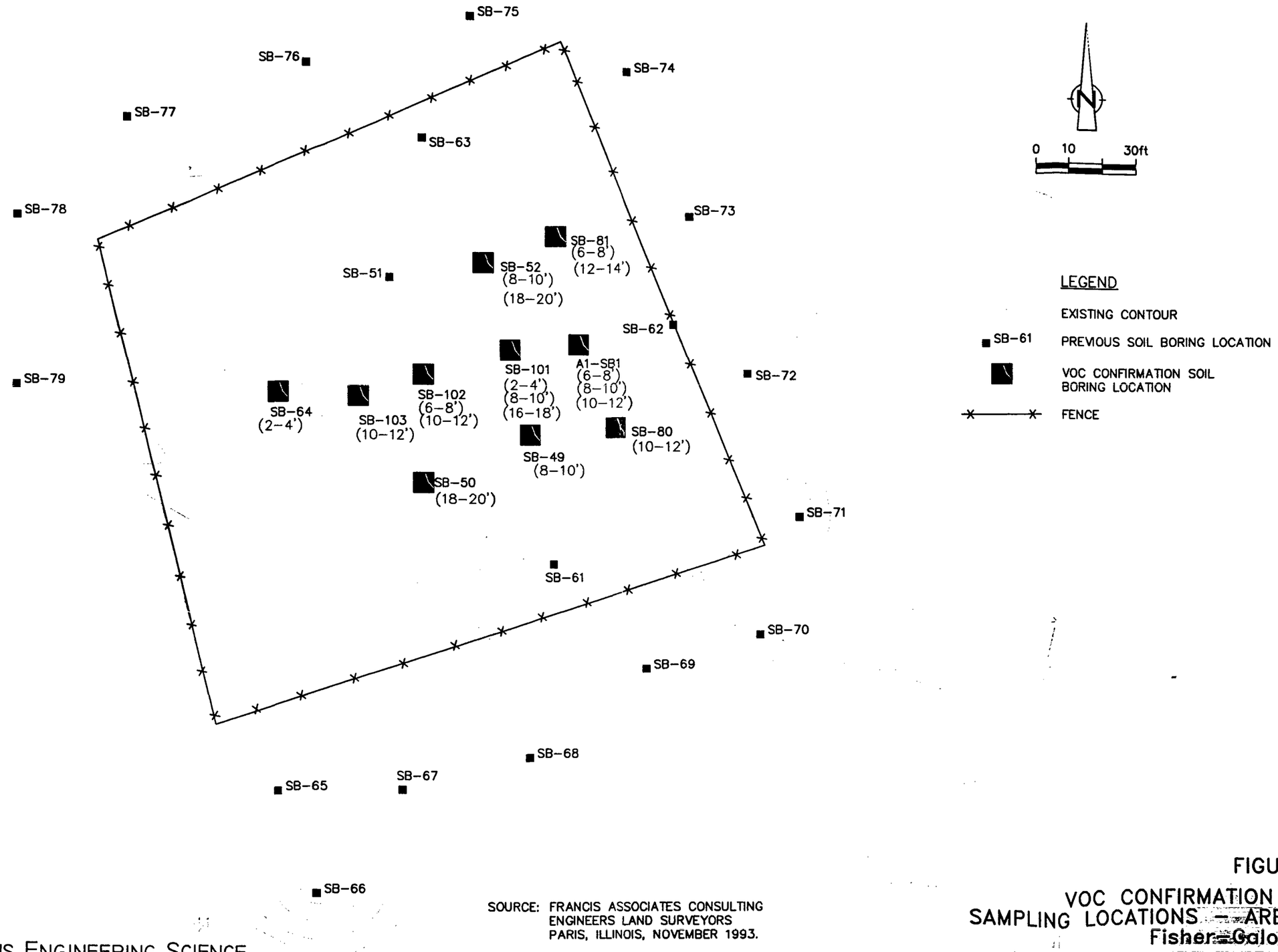


SOURCE: FRANCIS ASSOCIATES CONSULTING ENGINEERS LAND SURVEYORS, PARIS, ILLINOIS, APRIL 1995.

FIGURE 3
VOC CONFIRMATION
SOIL SAMPLING LOCATIONS
SPACE LEASING AREA
Fisher-Calo Site

CRA / PARSONS ENGINEERING SCIENCE

SAP\3-7-R4 7/30/99 / KB

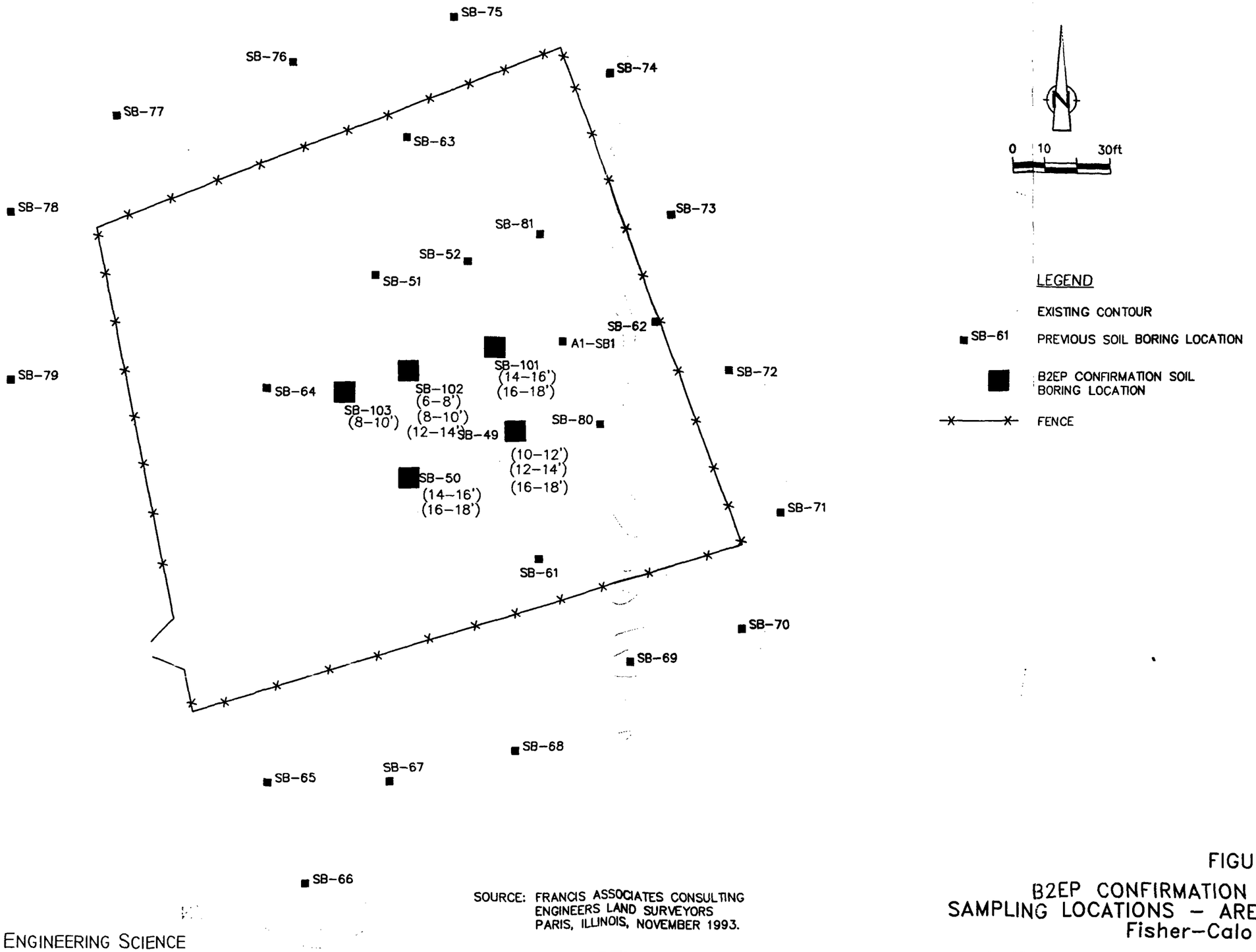


SOURCE: FRANCIS ASSOCIATES CONSULTING ENGINEERS LAND SURVEYORS PARIS, ILLINOIS, NOVEMBER 1993.

FIGURE 4
VOC CONFIRMATION SOIL SAMPLING LOCATIONS - AREA A1
Fisher-Calo Site

CRA / PARSONS ENGINEERING SCIENCE

OMMC\4-1-R1 7-18-97 / NP

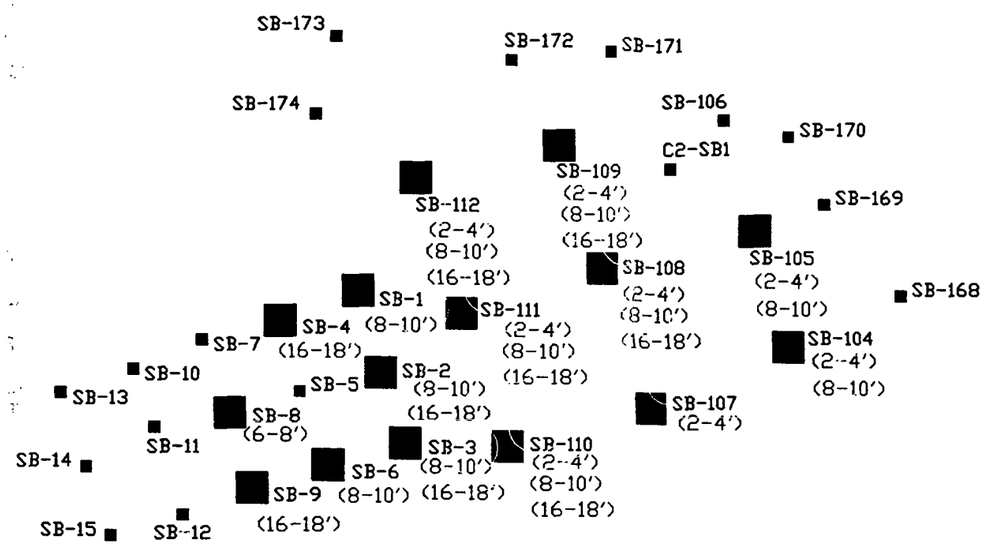


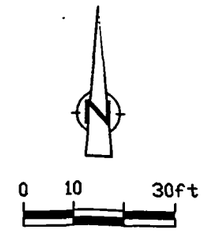
SOURCE: FRANCIS ASSOCIATES CONSULTING ENGINEERS LAND SURVEYORS PARIS, ILLINOIS, NOVEMBER 1993.

FIGURE 5
B2EP CONFIRMATION SOIL SAMPLING LOCATIONS – AREA A1
Fisher-Calo Site

CRA / PARSONS ENGINEERING SCIENCE

731517\DRAWINGS\OMMC\4-2-R3 11-15-99 / NW





LEGEND

EXISTING FENCE

SB-11 PREVIOUS SOIL BORING LOCATION

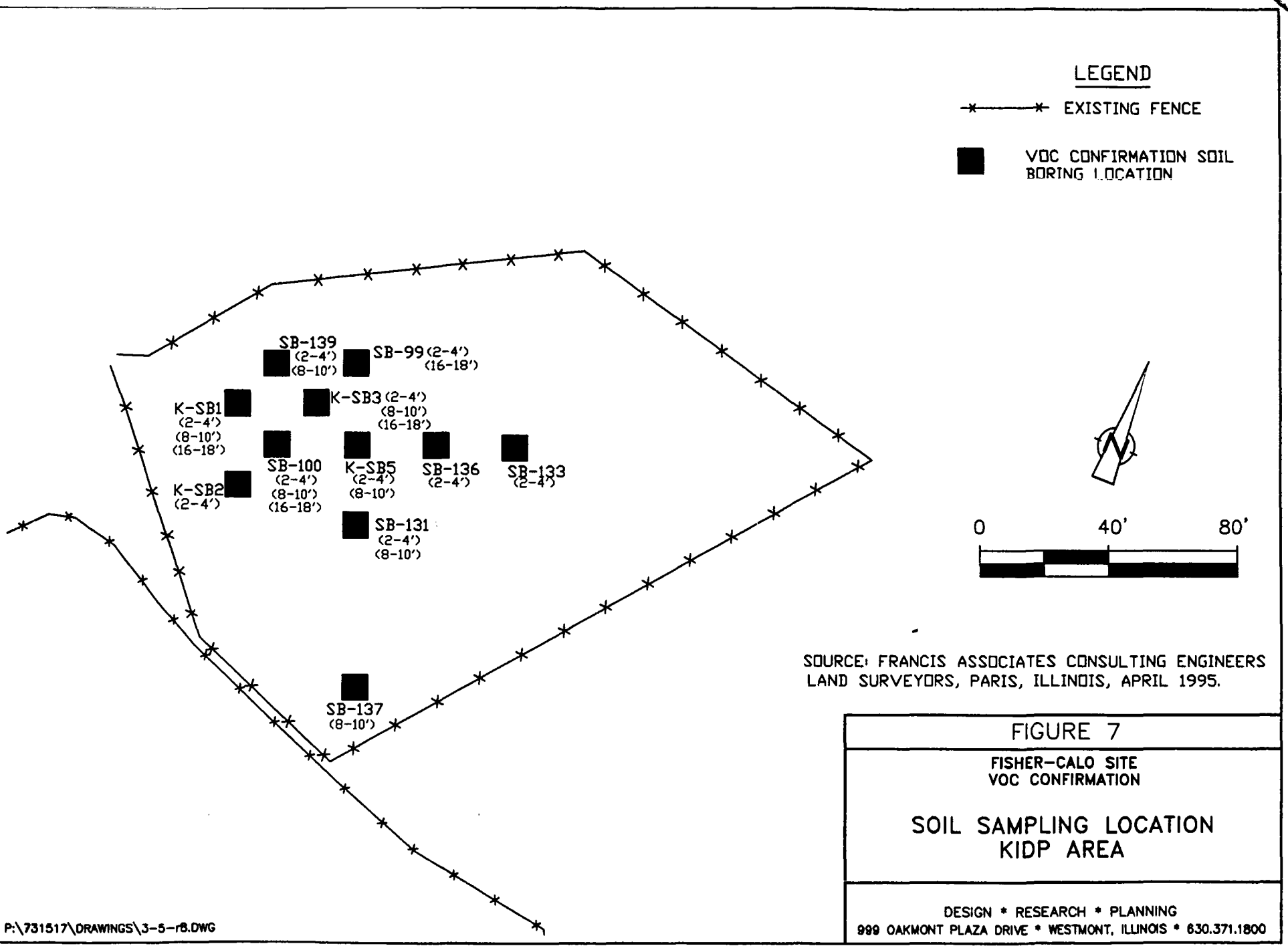
VOC CONFIRMATION SOIL BORING LOCATION

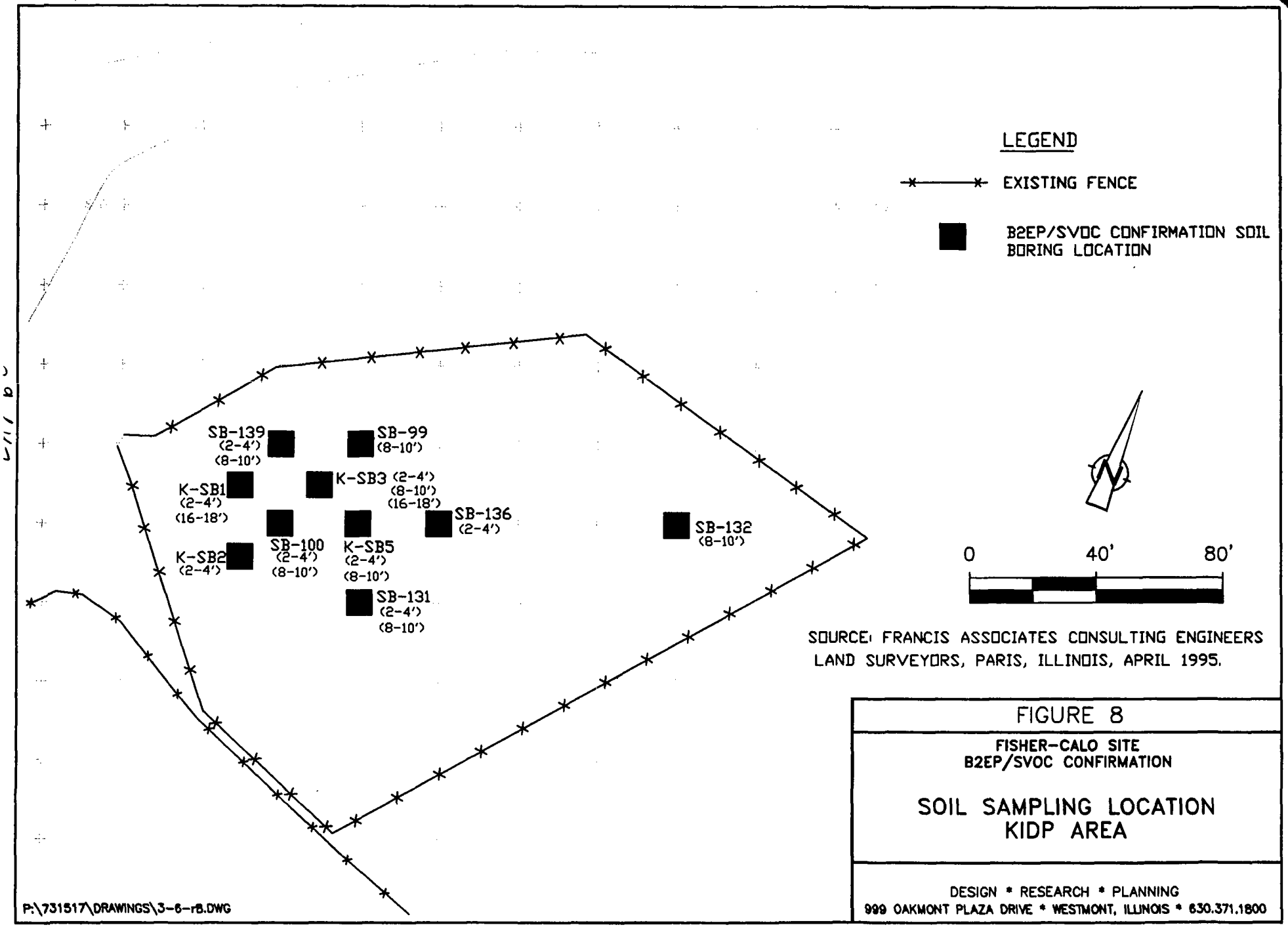
SOURCE: FRANCIS ASSOCIATES CONSULTING ENGINEERS LAND SURVEYORS PARIS, ILLINOIS, DECEMBER 1994

FIGURE 6
VOC CONFIRMATION SOIL SAMPLING LOCATIONS – AREA C2
Fisher–Calo Site

CRA / PARSONS ENGINEERING SCIENCE

OMMC\4-4-R1 7-18-97 / NP


LEGEND
EXISTING FENCE
VOC CONFIRMATION SOIL BORING LOCATION
SB-139 (2-4') (8-10')
SB-99 (2-4') (16-18')
K-SB1 (2-4') (8-10') (16-18')
K-SB3 (2-4') (8-10') (16-18')
SB-100 (2-4') (8-10') (16-18')
K-SB5 (2-4') (8-10')
SB-136 (2-4')
SB-133 (2-4')
K-SB2 (2-4')
SB-131 (2-4') (8-10')
SB-137 (8-10')
0
40'
80'
SOURCE: FRANCIS ASSOCIATES CONSULTING ENGINEERS LAND SURVEYORS, PARIS, ILLINOIS, APRIL 1995.
FIGURE 7
FISHER-CALO SITE
VOC CONFIRMATION
SOIL SAMPLING LOCATION
KIDP AREA
DESIGN * RESEARCH * PLANNING
999 OAKMONT PLAZA DRIVE * WESTMONT, ILLINOIS * 630.371.1800
P:\731517\DRAWINGS\3-5-r8.DWG


LEGEND
EXISTING FENCE
B2EP/SVOC CONFIRMATION SOIL BORING LOCATION
SB-139 (2-4') (8-10')
SB-99 (8-10')
K-SB1 (2-4') (16-18')
K-SB3 (2-4') (8-10') (16-18')
SB-136 (2-4')
SB-132 (8-10')
SB-100 (2-4') (8-10')
K-SB5 (2-4') (8-10')
K-SB2 (2-4')
SB-131 (2-4') (8-10')
0
40'
80'
SOURCE: FRANCIS ASSOCIATES CONSULTING ENGINEERS LAND SURVEYORS, PARIS, ILLINOIS, APRIL 1995.
FIGURE 8
FISHER-CALO SITE
B2EP/SVOC CONFIRMATION
SOIL SAMPLING LOCATION
KIDP AREA
DESIGN * RESEARCH * PLANNING
999 OAKMONT PLAZA DRIVE * WESTMONT, ILLINOIS * 630.371.1800
P:\731517\DRAWINGS\3-6-rB.DWG

ATTACHMENT B

INDIVIDUAL USEPA CLOSURE LETTERS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

August 4, 1998

Mr. Richard Frendt
Parsons Engineering Science, Inc.
1000 Jorie Boulevard, Suite 250
Oak Brook, IL 60521

Dear Mr. Frendt:

This letter is to notify Parsons Engineering that based on the most recent March, 1998 soil source area sampling at the Fisher-Calo site reported in July, the soil remediation at Area A3 (known as the Canopy Area) has been completed. The March sampling results confirmed that the bis(2-ethylhexyl)phthalate compliance standard of 6.1 mg/kg has been met.

Please call if you have any questions or concerns.

Sincerely,

Jeff Gore, RPM

cc: Resa Ramsey, IDEM
Stan Labunski, Tetra Tech

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

September 7, 1999

Mr. Richard Paulen
Barnes & Thornburg
121 W. Franklin Street, Suite 200
Elkhart, Indiana 46516

Dear Mr. Paulen:

This letter is to notify you that the USEPA and IDEM approve the Closure Report for the Space Leasing Soil Source Area for the Fisher-Calo Superfund Site as part of Quarterly Report No. 5, dated July 30, 1999 and revised August 16 and August 31 by Parsons Engineering. This approval is based on the November, 1998 and May, 1999 soil source area sampling at the Fisher-Calo Site confirming that the clean-up levels for the eight chemicals of concern at the Space Leasing Area as listed in the quarterly report have been met. As discussed previously, we assume the security fence around the Space Leasing Area will remain in place for the foreseeable future.

Please call if you have any questions or concerns regarding this matter.

Sincerely,

Jeff Gore, RPM

cc: Resa Ramsey, IDEM
Stan Labunski, Tetra Tech

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

December 7, 1999

Mr. Richard Paulen
Barnes & Thornburg
121 W. Franklin Street, Suite 200
Elkhart, Indiana 46516

Dear Mr. Paulen:

This letter is to notify you that the USEPA and IDEM approve the Closure Report for Soil Source Areas A1 and C2 at the Fisher-Calo Superfund Site, as part of Quarterly Report No. 6 dated November 11, 1999 by Parsons Engineering. This approval is based on the September 28 and 29, 1999 soil source area sampling at the Fisher-Calo Site, confirming that the clean-up levels for the chemicals of concern at the A1 and C2 Source Areas as listed in the quarterly report have been met. As discussed , we assume the security fence around the A1 Source Area will remain in place for the foreseeable future, while the C2 Source Area fence and treatment system will be removed.

Please call if you have any questions or concerns regarding this matter.

Sincerely,

Jeff Gore, RPM

cc: Resa Ramsey, IDEM
Stan Labunski, Tetra Tech

23/49

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

January 8, 2002

Mr: Richard Paulen
Barnes & Thornburg
121 W. Franklin Street, Suite 200
Elkhart, Indiana 46516

Dear Mr. Paulen:

This letter is to notify you that the USEPA and IDEM approve the Closure Report for the KIDP Soil Source Area for the Fisher-Calo Superfund Site as part of Semi-annual Report (June 2001 through November 2001), dated December 4, 2001 by Parsons Engineering. This approval is based on the soil source area sampling activities by Parsons at the Fisher-Calo Site between May 1995 and November 2001. This sampling confirmed that the clean-up levels for the five VOC and four SVOC chemicals of concern at the KIDP Area as listed in the KIDP Closure Report have been met.

The closure of the KIDP Soil Area remedy completes all soil source area clean-ups by Parsons at the Fisher-Calo Site. As discussed, Parsons should submit a Final Closure Report for USEPA and IDEM approval after all decommissioning activities have been completed at Fisher-Calo.

Please call if you have any questions or concerns regarding this matter.

Sincerely,

Jeff Gore, RPM

cc: Resa Ramsey, IDEM
Rick Frendt, Parsons

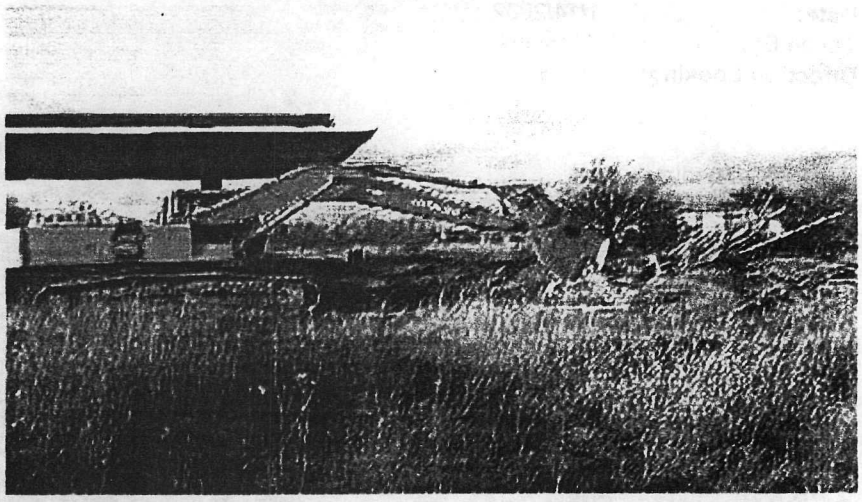
ATTACHMENT C

DECOMMISSIONING PHOTOGRAPHS

PHOTOGRAPHIC LOG: Decommissioning of Area A3

Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/20/2001
Taken By: M Evans
Direction Looking: N

Removal of security fencing with shearing attachment at Area A3.

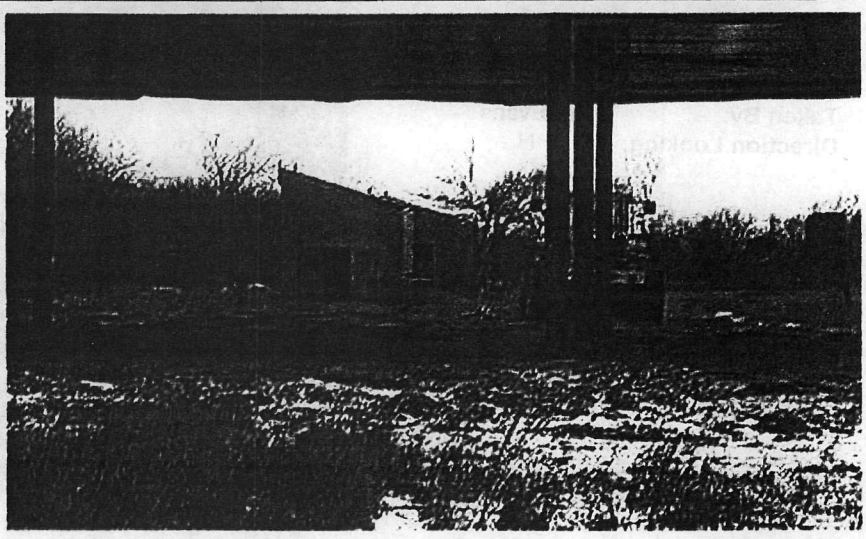


Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/20/2001
Taken By: M Evans
Direction Looking: N

Loading scrap and fencing material onto truck at Area A3.

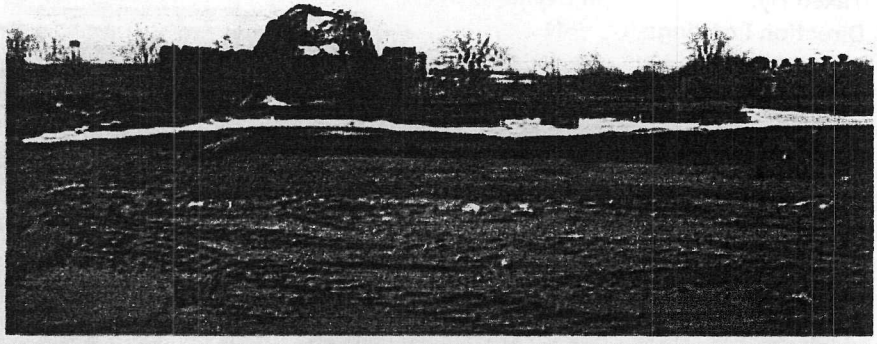
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/28/2001
Taken By: M Evans
Direction Looking: NW

Grading and leveling soil berms at Area A3.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: S

Area A3 immediately after deconstructing the site canopy.

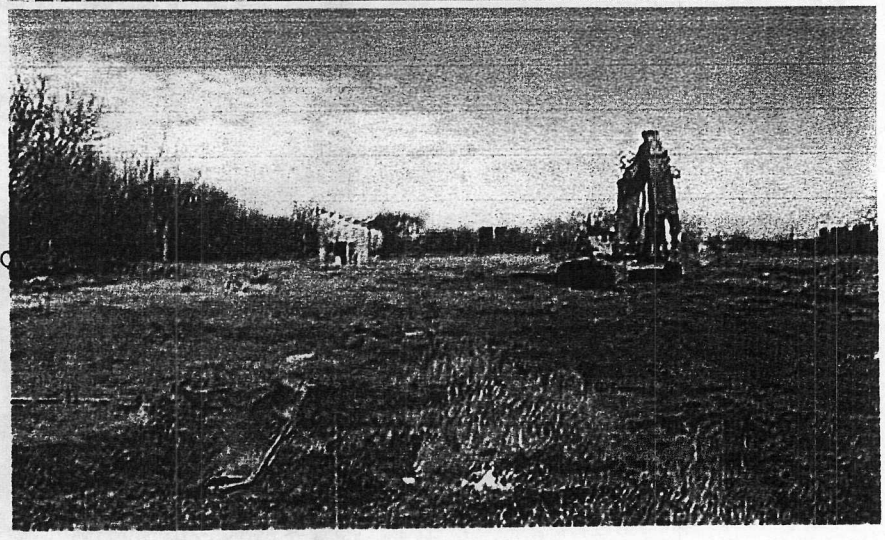


Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: NE

Removing the bottoms of the supporting I-beams at Area A3.

Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: N

Area A3 after canopy has been removed. AC



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: NNW

Finished grade at Area A3.

Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: WNW

Finished grade at Area A3.

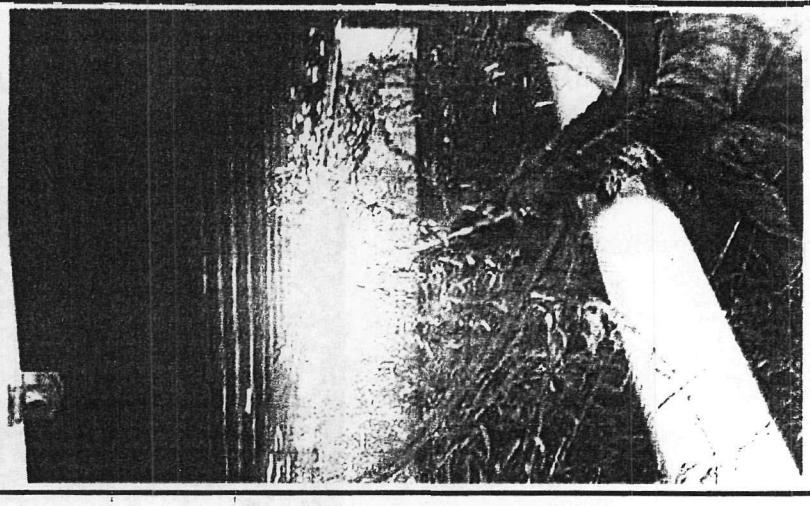
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: NNE

Finished grade at Area A3.

PHOTOGRAPHIC LOG: Decommissioning of Space Leasing Area

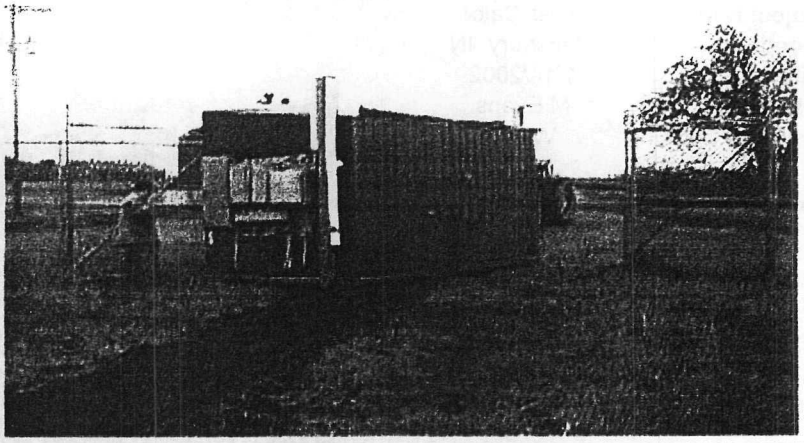
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/19/2001
Taken By: M Evans
Direction Looking: N

Cutting shed tiedowns to concrete pad at the Space Leasing Area.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/19/2001
Taken By: M Evans
Direction Looking: W

Moving equipment shed through gate at the Space Leasing Area.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/19/2001
Taken By: M Evans
Direction Looking: E

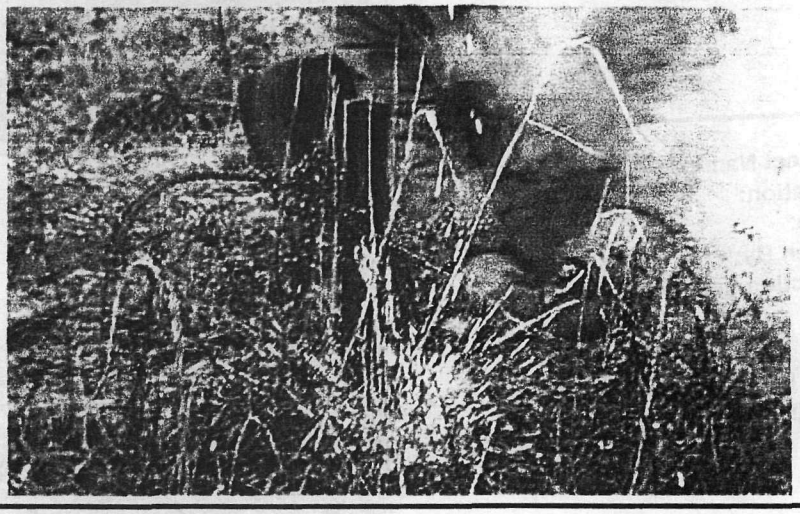
Loading Space Leasing equipment building onto a flat bed for transport to the waste waster treatment plant.

Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/19/2001
Taken By: M Evans
Direction Looking: S

Deconstructing PVC header system athe the Space Leasing Area.

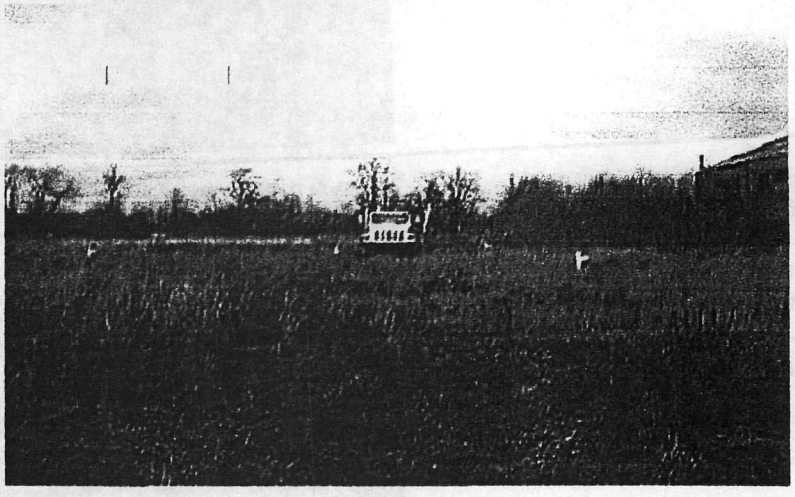
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/19/2001
Taken By: M Evans
Direction Looking: N

Cutting down metal supporting struts to below grade.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/21/2001
Taken By: M Evans
Direction Looking: N

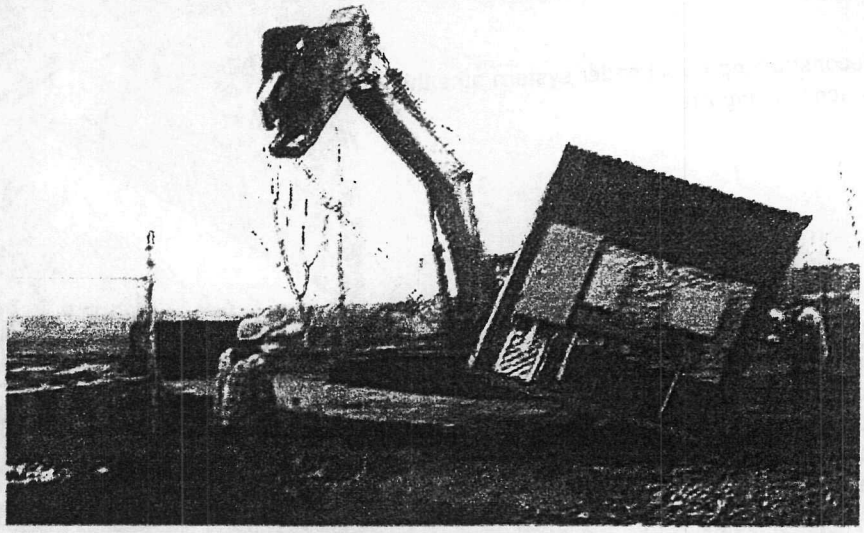
Filling and removing wells and wellheads at the Space Leasing Area.



PHOTOGRAPHIC LOG: Decommissioning of Area A1

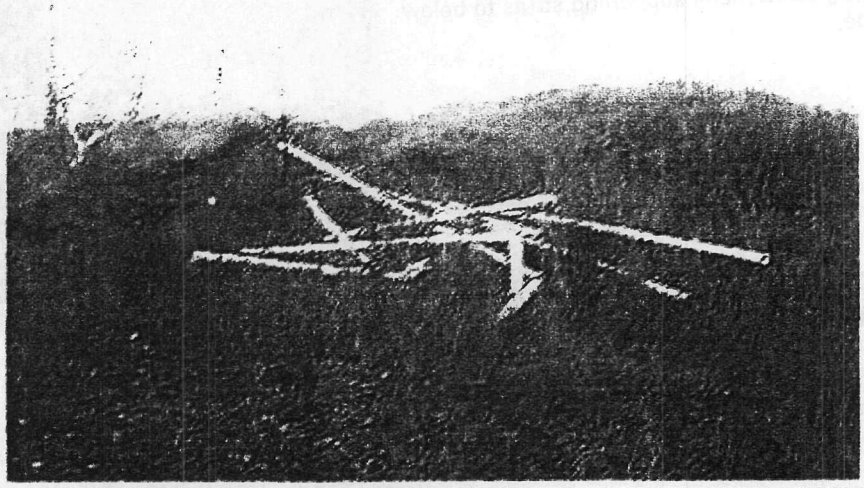
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/19/2001
Taken By: M Evans
Direction Looking: E

Loading equipment building from Area A1 onto a flat bed truck for transport to the waste water treatment plant.



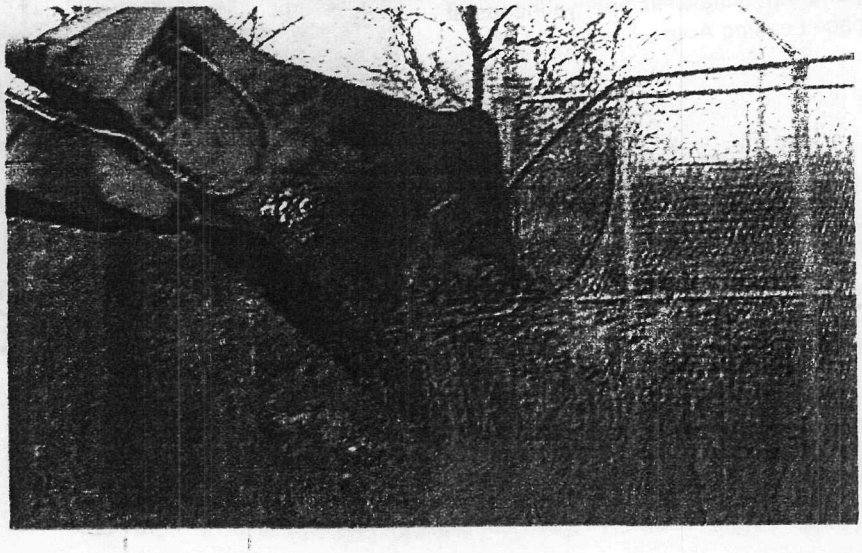
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/19/2001
Taken By: M Evans
Direction Looking: NE

PVC headers at Area A1 removed and awaiting off-site disposal.



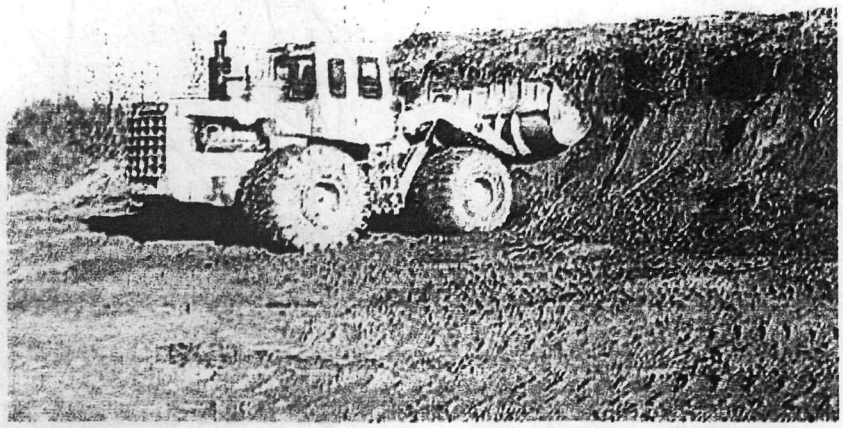
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/19/2001
Taken By: M Evans
Direction Looking: NE

Removal of security fencing at Area A1.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/19/2001
Taken By: M Evans
Direction Looking: NE

Moving the soil pile at Area A1.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/28/2001
Taken By: M Evans
Direction Looking: NE

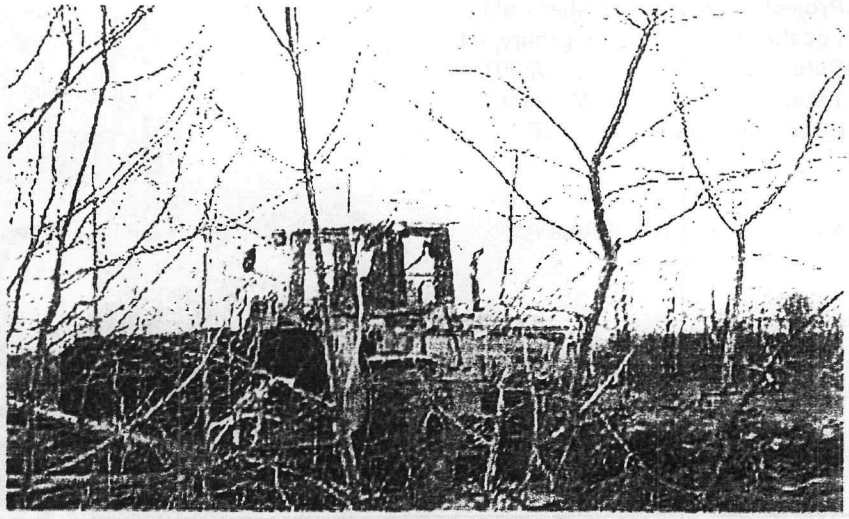
Area A1 with about half of the soil pile removed.

Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/28/2001
Taken By: M Evans
Direction Looking: NW

Area A1 excavation being gradually filled in.

Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 12/28/2001
Taken By: M Evans
Direction Looking: NW

Area A1, clearing trees and brush.

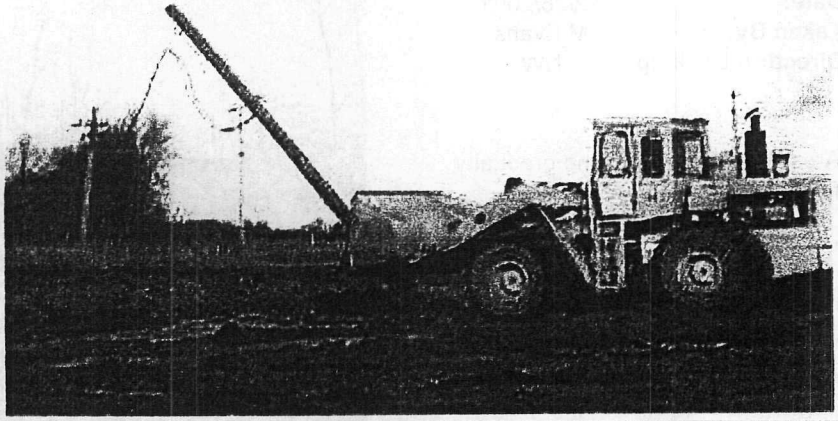


Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/9/2002
Taken By: M Evans
Direction Looking: E

Leveling and grading soil berms at Area A1.

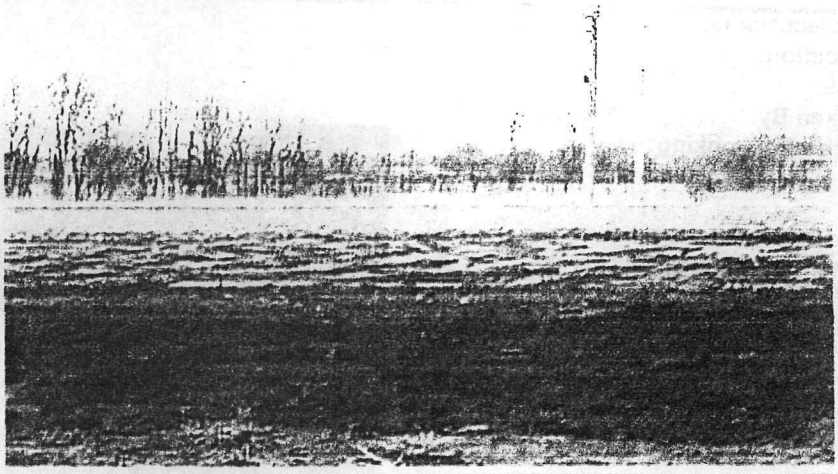
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/9/2002
Taken By: M Evans
Direction Looking: NNE

Removal of power poles from Area A1.



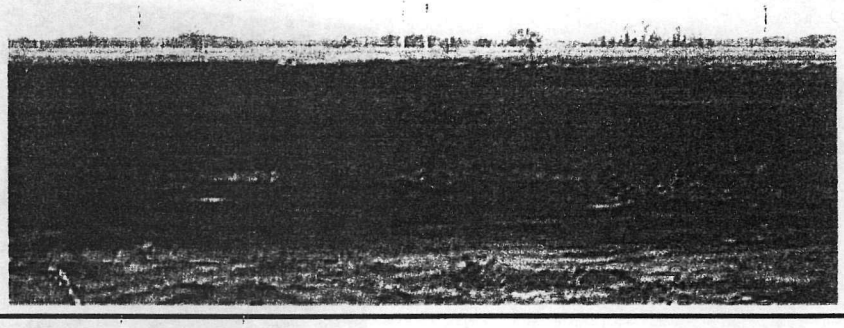
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/9/2002
Taken By: M Evans
Direction Looking: N

Final grade at Area A1.



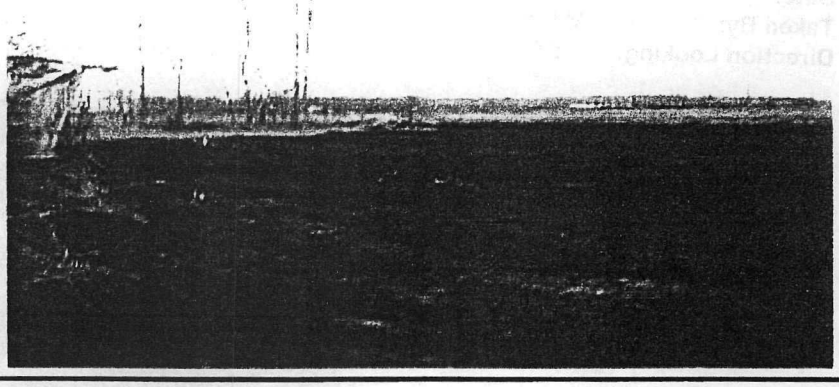
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/9/2002
Taken By: M Evans
Direction Looking: E

Final grade at Area A1.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/9/2002
Taken By: M Evans
Direction Looking: NNW

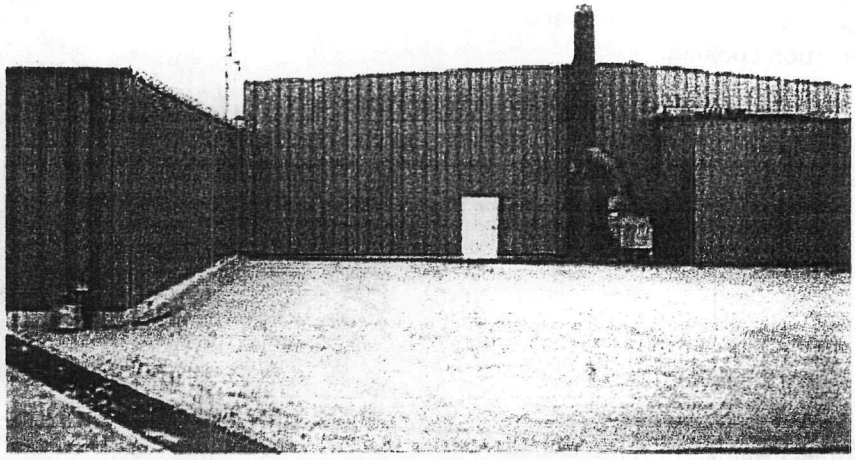
Final grade at Area A1



PHOTOGRAPHIC LOG: Current Conditions of Former Area C2

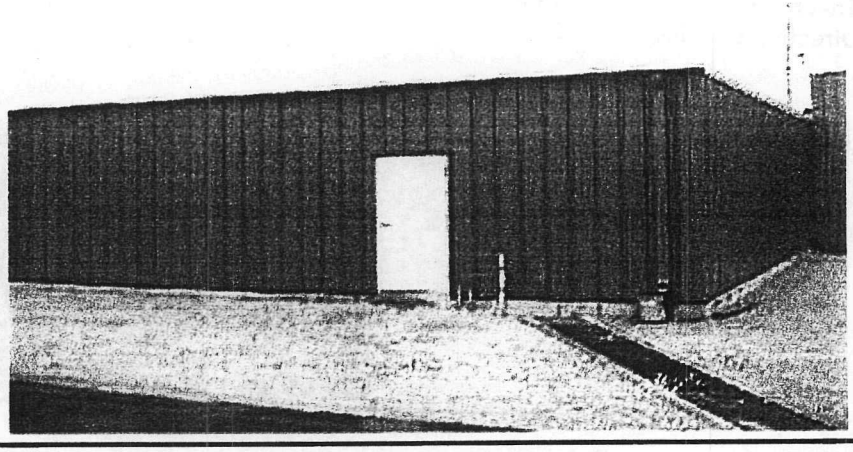
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: S

Alexander Chemical building extension constructed over the former Area C2.



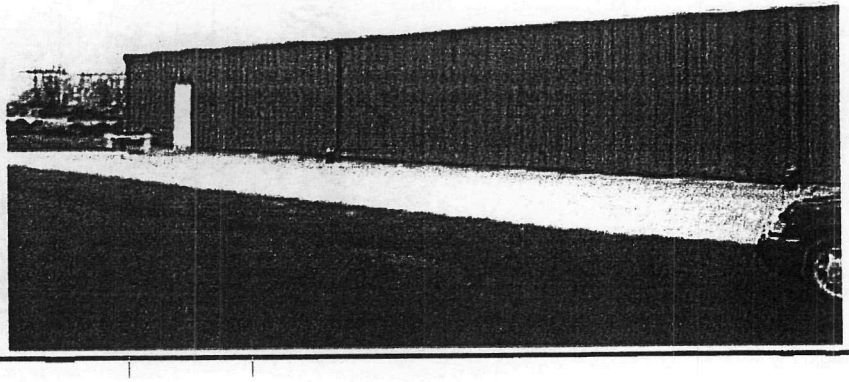
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: ESE

Alexander Chemical building extension constructed over the former Area C2.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: ESE

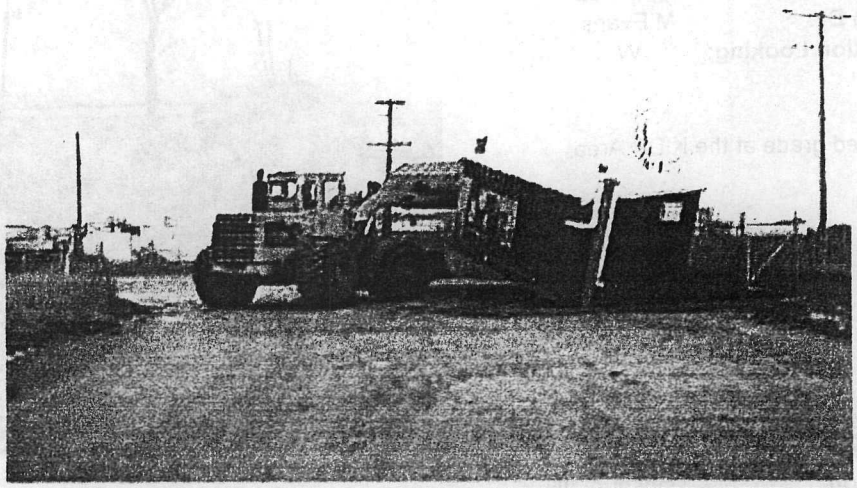
Alexander Chemical building extension constructed over the former Area C2.



PHOTOGRAPHIC LOG: Decommissioning of KIDP Area

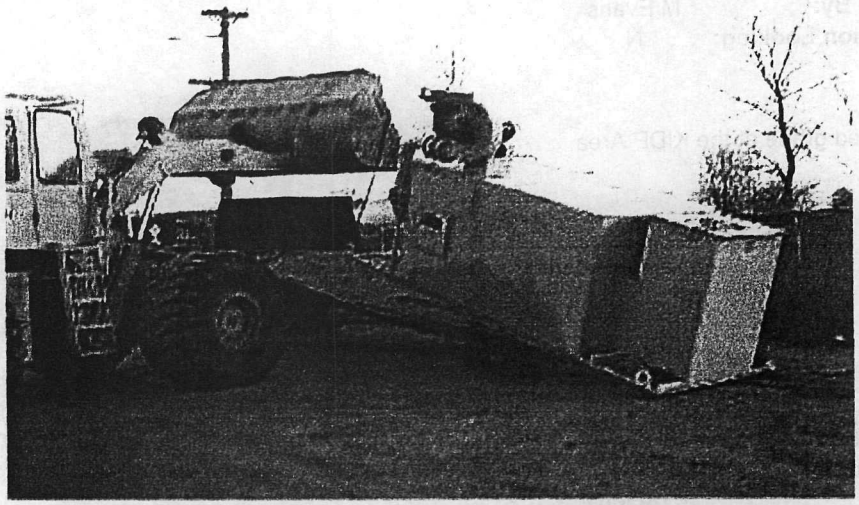
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/10/2002
Taken By: M Evans
Direction Looking: N

Loading equipment building from the KIDP Area onto a flatbed for transport to the waste water treatment plant.



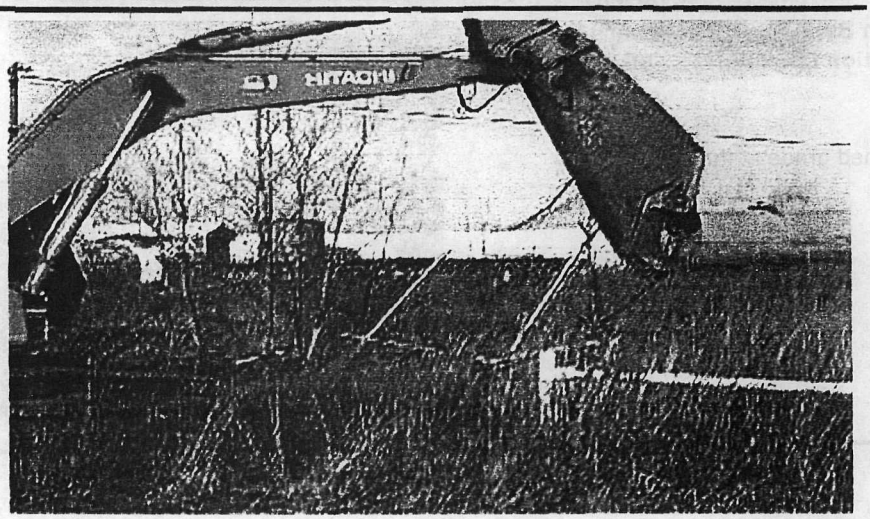
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/10/2002
Taken By: M Evans
Direction Looking: NNE

Loading thermal oxidizer from the KIDP Area onto a flatbed for transport to the waste water treatment plant.



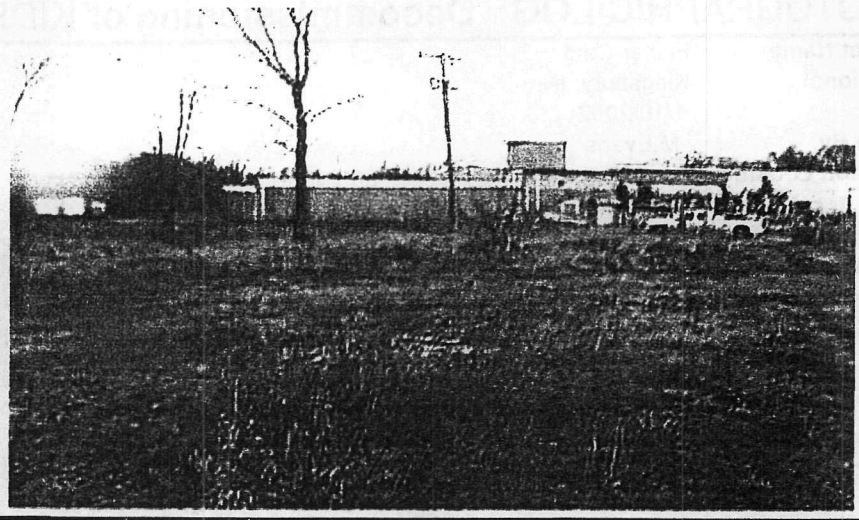
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: WNW

Removal of the security fencing at the KIDP Area.



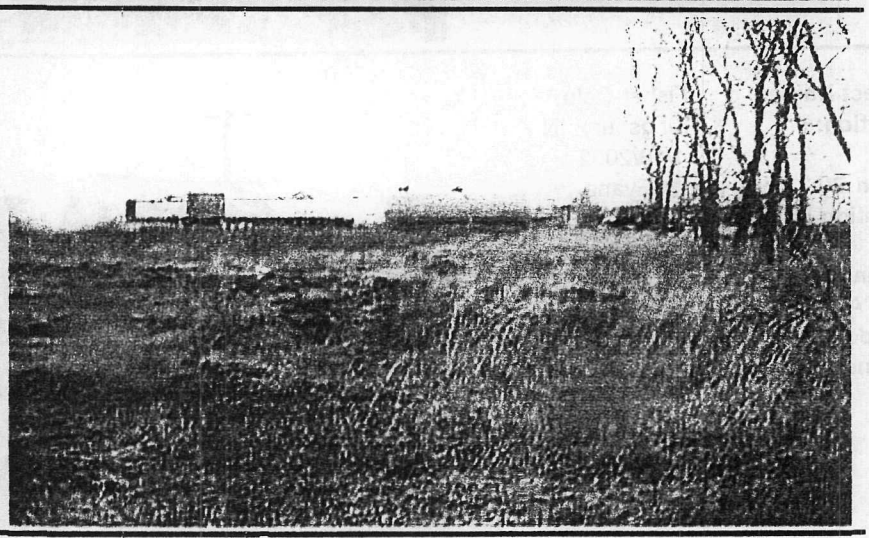
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: W

Finished grade at the KIDP Area.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: N

Finished grade at the KIDP Area.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 1/14/2002
Taken By: M Evans
Direction Looking: SE

Finished grade at the KIDP Area.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF 3F1

LaPorte County
7500015

February 22, 2002

Mr. Richard Paulen
Barnes & Thornburg
121 W. Franklin Street, Suite 200
Elkhart, Indiana 46516

RE: Final Closure Report- Source Area Remediation

Dear Mr. Paulen:

This letter is to notify you that the USEPA and IDEM approve the Final Closure Report- All Source Areas for Source Area Remediation at the Fisher-Calo Superfund Site in Kingsbury, Indiana. The document was prepared by Parsons Engineering and is dated February 14, 2002. This approval is based on the completion of remediation activities at all five of the soil source areas at the Fisher-Calo Site.

Please call if you have any questions or concerns regarding this matter.

Sincerely,

Jeff Gore, RPM

cc: Resa Ramsey, IDEM
Rick Frendt, Parsons

FEB 28 2002

BARNES & THORNBURG

Bank One Building
Suite 200
121 West Franklin Street
Elkhart, Indiana 46516 U.S.A.
(574) 293-0681
(800) 821-0861
Fax (574) 296-2535

www.btlaw.com

Richard W. Paulen
Email: rpaulen@btlaw.com

May 3, 2002

3F1

La Porte County

#7500015

VIA FEDERAL EXPRESS
Ms. Resa L. Ramsey, Project Manager
Superfund Section
Office of Environmental Response
Indiana Department of Environmental Management
P.O. Box 6015
Indianapolis, Indiana 46206-6015

VIA FEDERAL EXPRESS
Mr. Jeff Gore
U.S. Environmental Protection Agency
SR-6J, Region V, Remedial Response
77 West Jackson Boulevard (RL-6J)
Chicago, Illinois 60604-3590

MAY - 6 2002

Re: Fisher-Calo RD/RA Site Group
Area A-1

Dear Jeff and Resa:

During our last monthly conference call, you raised questions regarding a low area at the former Area A-1 (Mt. Fisher). In response to your questions, the Site Group investigated the area, determined that there had been a small amount of settling, and had the area re-graded to fill the low spot. I have enclosed copies of the photo-log for the work performed in this area.

This activity by the Site Group should resolve the last outstanding issue with respect to Area A-1 and complete your review of the demobilization of the Site Group's soils remedial action. If you have any other questions regarding the soils work, please contact me.

Respectfully,
BARNES & THORNBURG

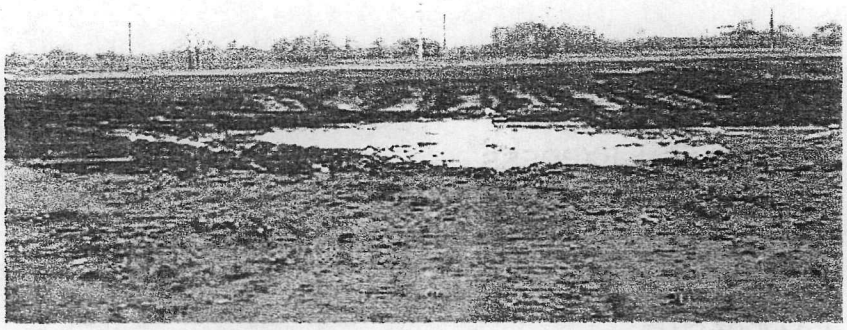
Richard W. Paulen

RWP/jdm
Enclosure
cc: Mr. Robert Olian (w/encl.)
Mr. A. Bruce White (w/encl.)
Mr. Richard M. Frendt (w/o encl.)
Mr. David Heidlauf (w/o encl.)

PHOTOGRAPHIC LOG

Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 4/29/2002
Taken By: M Evans
Direction Looking: N

Settled area at the former Area A1.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 4/29/2002
Taken By: M Evans
Direction Looking: SE

Settled area at the former Area A1.

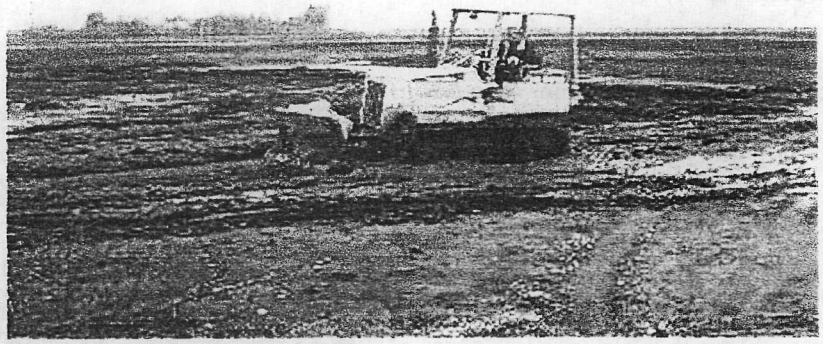
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 4/29/2002
Taken By: M Evans
Direction Looking: N

Regrading of the former Area A1.

PHOTOGRAPHIC LOG

Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 4/29/2002
Taken By: M Evans
Direction Looking: N

Regrading of the former Area A1.

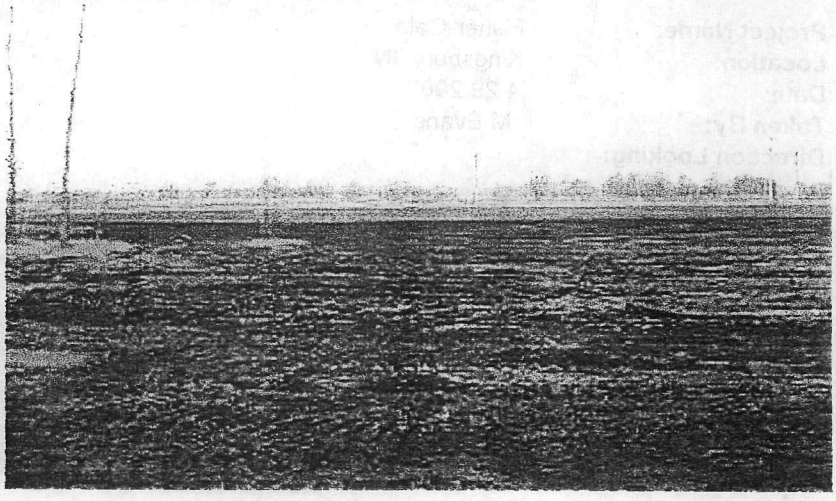


Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 4/29/2002
Taken By: M Evans
Direction Looking: NNE

Regrading of the former Area A1.

Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 4/29/2002
Taken By: M Evans
Direction Looking: N

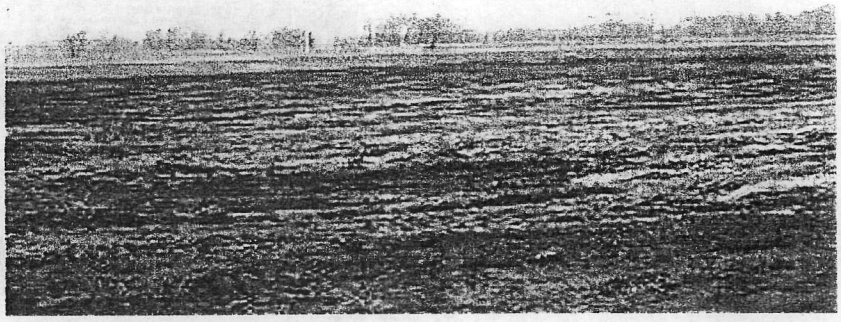
Completed grade at former Area A1.



PHOTOGRAPHIC LOG

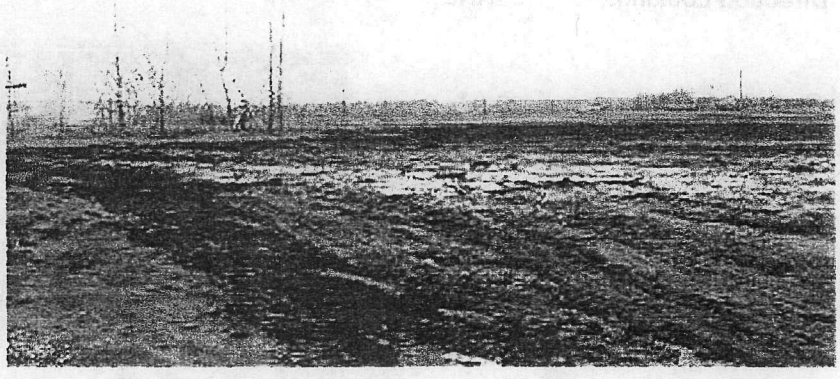
Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 4/29/2002
Taken By: M Evans
Direction Looking: N

Completed grade at former Area A1.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 4/29/2002
Taken By: M Evans
Direction Looking:

Completed grade at former Area A1.



Project Name: Fisher-Calo
Location: Kingsbury, IN
Date: 4/29/2002
Taken By: M Evans
Direction Looking:

Completed grade at former Area A1.